

THE
ECONOMIC DEVELOPMENT
OF
INDIA

VOLUME I

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To
THE MEMORY
Of
THE LATE
SIR ASUTOSH MOOKERJEE.

PREFACE

The present book is the outcome of study spread over several years. The author has attempted, in this volume, to deal with some of the facts and circumstances of India, upon the proper understanding and deliberate handling of which depends, to a very large extent, the economic development of India. The next volume will deal with the remaining topics of the subject. The present volume begins with a discussion of the applicability of economic laws to India as a preliminary to the main study. Then the book is divided into three parts, viz., Part I. Agricultural, Part II. Protection, and Part III. Currency and Exchange. Under each Part the important economic problems have been studied and the way to economic development indicated. Throughout the book the author has attempted to deal with the subject matter purely from the economic point of view, and the scientific method of study has been kept in view.

The author is grateful to the various writers mentioned in the book, as also others, from whom he has received direct or indirect help in his study of the subject-matter dealt in this volume. He also takes this opportunity of acknowledging his debt to Mr. Devaprasad Ghosh, Vakil, High Court, Calcutta, for his friendly assistance in seeing the book through the press.

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THE AUTHOR.

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INTRODUCTION

APPLICABILITY OF ECONOMIC LAWS TO INDIA.

Laws of economics are statements of tendencies which are in constant operation but the effects of which may be overpowered or modified by other tendencies simultaneously operating. These modifying forces are not necessarily economic. Ordinarily economics studies man as he is placed in modern societies. Hence the assumptions which are made by modern societies in general also form the assumptions of economics. Of these the two most important assumptions are private property and competition. The idea of property involves the right that each man in a modern society has complete and absolute power to do whatever he likes with what is possessed by him so long as he does not interfere with similar rights of others. It is apparent that economic laws deduced from such a society will be modified in their effects if they are applied to a society where no private property is allowed.

A similar and, from the point of view of economics, probably more important assumption is that of free competition. As this assumption is very important we shall con-

sider it in some detail in order to avoid any misunderstanding. Competition in economics seeks to give free scope to the economic self-interest of individuals without any checks. These checks are usually considered to be (1) custom which is always so important in the life of man; (2) combination by which producers or sellers or any other members of an economic group may join together in order better to fight with other groups; and (3) legislative interference with free competition.

With private property free competition involves freedom of contract and therefore enforcement of contracts when voluntarily entered into. This competition is a biological essential which can be seen in all spheres of life, vegetable and animal. It is seen in what is called struggle for existence or survival of the fittest. In a sense it includes co-operation. Co-operation is consciously working together for a common end. Its object is none other than that of competition. Both seek self-interest, one individually and the other collectively. If the self-interest of the individual be contradictory to that of the group it cannot be the interest of either the individual or the group to retain such co-operation. Co-operation, therefore, is really group-competition, and, in this, groups may combine into bigger and bigger groups. Thus one State is a unit as against other States, the individuals

of which combine for certain purposes, although sub-groups may have partially antagonistic interests. Nor does this competition necessarily imply any thing sordid, just as competition in biological evolution does not do so.

Because the laws of economics normally presume that private property and free competition operate in their working, therefore to the extent that this does not hold in a community or country, to that extent the laws of economics must be modified in their operation in the light of existing facts. Hence it is necessary to ascertain to what extent economic laws as they have been developed and formulated in the West are applicable to India, and along what lines this modification of their operation is to be seen.

The need of such study as also the difficulty consists in the fact that during the last one hundred years the conditions of Indian life are changing, rapidly in some cases, slowly in others, but changing all the same, by the impact not, as usually imagined, of the Western system merely, but more of what we may call "modernism". The railways, posts, telegraphs, etc., have worked more towards this end than the culture of the West, the effect of which is not so direct nor so strong upon the masses of the people. These changes in social life require to be

especially studied in order to discover the results of the operation of economic laws upon the old and the new system in India.

A great difficulty in the way of the scientific student is in the want of sufficient and reliable data about the facts of Indian life, especially in the villages where about ninety per cent. of the population live. This is so in spite of the wonderful mass of statistical information collated by Government. This difficulty is further enhanced by the fact that social changes vary in various parts of the country as a result of the difference in temperament, social customs and traditions, and the stage of development of the people. Also, the forces of modern applied science have differently affected different areas.

In applying economic laws to India we find that most of the modifications of their operation are the result of want of the same degree of competition as prevails in the West and upon the assumption of which general economic laws have been built up. For example, in social life caste rules prevent mobility of labour both from trade to trade and from place to place. Similarly variation in wages does not always follow variation in the demand and supply of labour but on customary wages which limit competition.

Some people allege that Indian society is based on an entirely different principle from

what obtains in the West, this principle being co-operation as contrasted with competition. As already pointed out this view is wrong inasmuch as competition does not exclude co-operation. Competition assumes the operation of the individual's economic self-interest, and co-operation, when voluntary, is only an instrument to further the same. Such co-operation as is found in India is based upon the lines of the community, village, occupation, and nationality. But the principle is the same as in competition, viz., to foster the self-interest of the groups, and the co-operation obtained from individuals must, in normal course, follow the lines of joint and separate interests of individuals. If there be any conflict between the two kinds of the individual's self-interest he adheres to or gives up co-operation according as the total benefit which he derives for himself is or is not greater than his benefit without such co-operation. Thus in essence there is little difference between competition and co-operation in economics. If by co-operation be meant compulsory association in economic activity against the self-interest of the component individuals, that is not at all desirable. If that exist in any part of India it is economic tyranny and should not be tolerated.

Such want of competition as acts like a drag on economic development may be born

of social customs, religious prejudices, and various other defects. Thus land in India is subdivided into too small fragments which cannot be economically cultivated. This is due to the law of inheritance which prevails among both the Hindus and the Mussalmans. Also, love for every plot of ancestral lands generates the desire of having a share in each plot by the descendants, with the result that each person often holds several plots which obviously cannot be economically used whether in the matter of time wasted in going from one plot to another or of wells for irrigation or of fencing and watching or sowing and reaping. Similarly labour is not so mobile because of the limitation of competition by caste rules, love for home, ignorance, and social prejudices.

The above illustrations will make clear the line along which the economist in India must work in attacking its economic problems. This attitude frankly condemns those who are supposed to have inaugurated a new school of Indian economics instead of a new phase of study only. Those who seek to derive new laws applicable to India alone or to reject economic laws in their operation in India because there are other conditions and different facts toil in vain in their effort to construct a science of Indian Economics as distinct from economic science in general.

PART I.
AGRICULTURAL.

CHAPTER I.

AGRICULTURAL IMPROVEMENTS.

By agricultural improvements we usually mean either of two things or both, viz., (1) improvements by which the output of the land is increased more than the increase in the cost of production, and (2) increase in the share of the income from land on the part of the agriculturists. The former is a question of production while the latter is one of distribution. It is evident that an effort towards agricultural improvement should proceed along both these lines. The need for such improvement is urgent now because the agricultural income per head tends to decrease greatly as a result of the increase in the population which is dependent upon land. This increase is the result of two sets of causes, viz., (1) the increase in the total population and the consequent increase in the number which has to be supported directly by land in productive employment. This is so because India is an old country and therefore the increase in the area under cultivation cannot be as rapid as in new and developing countries, and this cause will persist unless means be devised to divert this surplus population to productive employments other than agricul-

tural. (2) Owing to the disorganisation of India's industries as a result of the competition of machine-made goods, an additional number has been forced upon the land, which formerly lived by other industries. The hand spinner and the hand-loom weaver are the typical example of this condition. During the last one hundred years or so, there has been an almost continuous rise in the price of food grains. This makes agriculture profitable. At the same time the profits of the artisan classes have diminished as a result of the growing competition of machine-made goods, both locally manufactured and imported. The result is that these classes tend to abandon their traditional occupations. They usually take to agriculture, and, to a much less extent, to the factories. Many existing village artisans are also partly dependent upon agriculture. Therefore, we find that in 1891, 62 per cent. of the total population of India subsisted upon land. In 1901 the percentage was 68; in 1911 it was 72; and in 1921 it was also 72. This last is really no improvement since during the decade ending in 1921, the total population increased by only 1·2 per cent. This is mainly the result of the influenza epidemic of 1918-1919 which especially affected the rural population.*

* Census of India Report for 1921.

According to the census of 1921 the total number which subsists by agriculture is 178 millions out of a total population of 247 millions in British India. The net area actually sown is about 275 million acres, that is, the acreage per head of the agricultural population is 1.5, whereas in the United Kingdom it is about 16. This together with the improved methods of farming in the latter country shows the difference in the economic condition of the agriculturists of the two countries. Sir T. W. Holderness says:

“Subtracting the land utilised for supplying foreign markets from the total area under cultivation, we shall find that what is left over does not represent more than two-thirds of an acre per head of the total population. India, therefore, feeds and, to some extent, clothes its population from what two-thirds of an acre per head can produce. There is probably no country in the world where the land is required to do so much”.*

This makes it imperative to develop our lands as much as is possible with the aid of modern science. Again, the value of Indian agricultural products is not very much less than that of British agricultural products, in spite of the improved methods of the United

* Peoples and Problems of India.

Kingdom. This will be apparent from the following table:*

	Total value of agricultural output in millions of rupees. †	Total area under actual cultivation in millions of acres.	Value of agricultural output per acre in rupees.	Total agricultural population in millions.	Value of agricultural output per head of agricultural population in rupees.
India	17,250	223	77	178	97
United Kingdom	2,946	47	62	3	982

From the above it is evident that the pressure of population on the soil is acute in India. This pressure can be relieved in four ways: (1) By releasing the population from agriculture for absorption in other industries. With this question we are not now concerned.† (2) By extending the area of cultivation. The total area under cultivation in India is now 223 million acres and the current fallows 52 million acres. But culturable waste other than fallow is more than 113 million acres.

* The figures for India are taken from the "Estimates and Yield of Principal Crops in India, 1919-20", No. 1344, 1921, and the "Prices and Wages, 1920", No. 1512, 1922. Those for the United Kingdom are taken from the "Final Report of the Census of Production", Cd. 6320, 1913. Allowance should be made for the increase in English prices since 1913, which is a little less than 100 per cent.

† This is the gross income from agricultural lands, from which the expenses of farming should be deducted to get the net income, which is the share of the cultivator, the landlord or landlord-middlemen, all the merchant-middlemen dealing in agricultural output, and the State.

‡ Vide *infra* Chapter V.

Most of this land is now far away from human settlement and difficult to reach or is otherwise unattractive. But with the growth of the means of communication and the redistribution of population by internal migration from the densely populated to the sparsely populated areas, some of these lands are likely to be converted into agricultural lands. The chance is specially good for lands in Burma, Assam, the Central Provinces, and Central India. Systematic efforts should be directed towards facilitating this. (3) By improvements in the methods of cultivation, including the methods of reorganising the agricultural system in order to make the improvements more effective than they would otherwise be. This will not only increase the total output and thereby relieve the present distress, but will also release labour from land for use in manufacturing industries, for a shortage of labour is now felt there rather acutely. (4) By improved methods of organisation. This will help to redistribute the income from land, diverting more to the actual tiller of the soil from the middlemen whether landlords or traders, who now receive a substantial share of the total income from land.

For a substantial increase in agricultural output three things are necessary, viz., (1) efficient and industrious labour, (2) improvement in the implements used in agriculture

and introduction, so far as possible, of machinery, and (3) improvement of the soil.

(1) Whatever may be said of our factory worker*, our cultivator has always been found to be industrious and efficient. "At his best the Indian ryot or cultivator is quite as good as, and in some respects the superior of, the average British farmer, while at his worst it can only be said that this state is brought

* The employers of labour in Indian factories often complain of the great inefficiency of the factory labourers. But Sir Thomas Holland, late Member of the Government of India in charge of Industries, and President of the Indian Industrial Commission, 1916-1918, says: "In India we have the means of obtaining all the expert labour that is necessary. Any one who has visited the Tata Iron and Steel Works will come away thoroughly convinced with the conclusion that with Indian labour you can tackle any industry for which the country is suitable. I have seen labourers at Sakchi (Jamshedpur) who only a few years ago were in the jungles of the Santals without any education. They are handling now red hot steel bars, turning out rails, wheels, angles of iron as efficiently as you can get it done by any English labourer. You cannot have a better test of the quality of labour and you cannot be prepared for more satisfactory results. When your labour is organised and properly educated and properly fed there is not the slightest doubt that you will get results that will suit all raw materials available in the country. The whole question is largely of the methods we should adopt for getting information regarding our own materials and training people to suit the needs of industrial development."—Speech at Madras in 1918.

about largely by an absence of facilities for improvement which is probably unequalled in any other country".* This opinion has been confirmed by later authorities who are familiar with the Indian cultivator†. The industry of the Indian cultivator is also well-known. His most arduous work is the cultivation of the Terai lands on the slopes of the foot-hills of the Himalayas. Rice cultivation is also very hard work which is carried on in Bengal, Burma, Madras, and certain parts of Bombay and the Central Provinces. In other parts of the country his work is easier although he is engaged in continuous work for long periods during the working seasons.

(2) The Indian cultivator ordinarily uses only a few simple implements. The most important of these are ploughs, scarifiers, seed drills, harrows, sickles, and winnowing sieves. The power used is universally that derived from human beings and animals. Thus improvement in this line requires a two-fold innovation, viz., the introduction of better and more economical implements, and the use of automatic power from machine using either steam, oil, or electricity.‡ For this purpose

* Dr. Voelcker's Report on Improvement of Indian Agriculture.

† Dr. Mann's Life and Labour in a Deccan Village : Mackenna's Agriculture in India.

‡ Vide Report of the Indian Industrial Commission, 1916-1918, pages 58-59.

as also for that of improving the soil it is necessary to have more capital invested in this main industry which supports and, in spite of any scheme of developing manufacturing industries, will continue to support the major portion of the people of India. But Indian capital is attracted mostly to manufacturing industries or financing businesses of the country. This probably is to be explained by the gap which now exists between the rural cultivating classes and the capitalist middlemen who command capital. Little of the rural hoarded wealth which may be utilised for purposes of production has as yet been coaxed out to be used in agricultural or any other rural industry. Most of the active capital of India has been made in trade or manufacturing industries, and it naturally seeks re-investment in the hereditary line. This is due to ignorance of the facts and prospects of an industry which is not confined to what are considered as advanced areas. The first need, therefore, is to draw more and evermore capital for investment in agriculture and allied industries. Another desideratum is to facilitate the use of modern implements of agriculture through the hire-purchase system.

The use of power-driven machinery can come only at a later stage of development. The motor tractor, for example, can be purchased in either of two ways. The landlords

or the village communities in those areas where they exist can co-operate with the cultivators and buy for the use of the latter such costly implements and machinery. In such circumstances the relation between the landlord and the tenant must be reorganised on the basis of the system of *metayage*. Or, the cultivators must be advanced enough to co-operate on a large scale and buy or hire such machines for the joint use of several villages. In either case a condition precedent is the consolidation of the agricultural holdings which, in the existing conditions of the law of inheritance for both the Hindus and the Mussalmans, are subdivided into too small plots and which, even when owned or held by one person, whether a family or an individual, are widely scattered over one or more villages. In the alternative some scheme must be devised to distinguish different holdings without the aid of a complete boundary line round each plot, since such lines cannot exist between different plots of land of small area when the motor tractor is in use. This device is probably not difficult to find out if the boundary lines are not zigzag, or if a portion of the boundary line is removed in order to allow the tractor to move from one holding to another. So long as such machinery cannot be introduced means may be devised to change the present light-weight plough and have a heavy

one in its place, so that a greater turning of the turf and a deeper furrow may help the plants to draw more upon the nutrition provided by the soil.

(3) The most important need towards increasing the agricultural output is to improve the soil itself. This can be done by irrigation and manure. It is necessary to devote attention simultaneously to both these, inasmuch as the full effects of the one are not realised without substantial development of the other.

Before we deal with these it is necessary to look into the factors which determine the value of agricultural land. These are (1) what Ricardo called "the natural and indestructible powers of the soil," (2) improvements made on it by man, *e.g.*, by irrigation, manure, building, etc., and (3) situation, that is, distance from and the facilities of communication with the market ~~to~~ which the land or its product belongs. The first in its turn depends upon three factors, viz., mechanical properties, chemical substances, and biological elements.

According to their mechanical properties soils may be roughly divided into three kinds, viz., sandy, clayey, and what we may term normal. Each division is of various gradations, but for our purposes this three-fold division is sufficient. To support plants two mechanical properties are important. The

soil should be loose enough to permit plants to spread their roots as deep and wide as is required to draw the necessary sustenance from the soil. It should also be sufficiently adhesive to keep the plants erect. The former property is absent in clayey soil which is too sticky, and the latter is absent in sandy soil which is too loose.

The particular type of soil is the result of mechanical changes continuously going on. The chief agencies in this behalf are gravitation, heat and cold, wind, water and snow. Originally all soil is rocky. The pulverized rock is spread over the surface of the earth by the force of gravitation working on it. Thus mixed soils are produced. This force is continuously working to level the surface of the earth and wash soil particles to the sea. In so attempting it is always mixing up different soil constituents.

Heat and cold are important mechanical agencies. Different bodies expand and contract differently. The cause of this is yet unknown but its effect is very important. The rock, being mostly a mixed thing, except for example limestone, does not expand and contract uniformly. Thus heat and cold bring about a strain and jostling of the various particles of a rock. This loosens them, the rate of which differs according to the nature of the soil and the variation of heat and cold.

This process is materially helped by water. Water operates on the soil in three ways. (1) It percolates into the crevices and fissures of the rock. When this water freezes it expands with a force the cumulative effect of which will break up the hardest rock. Thus the rock is gradually split asunder. (2) Water in its course as rivers and glaciers carries the loose masses of the rock, thus grinding these as also the bed over which it moves. Such fragments are seen as pebbles and boulders which are finally worn into sand or clay according to the constituent elements. (3) Water percolates into every cranny and fissure, thus acting as the universal softener and solvent. In this aspect its action borders between the mechanical and the chemical.

The three most abundant chemical constituents of the soil are oxygen, silicon, and aluminium. The presence in greater or less degree of the last substance determines the character of the soil. A large dose of it makes the soil clayey, and its absence makes it sandy. A moderate quantity would give our normal soil. Of the above constituents oxygen is the most important as, it readily enters into compounds with most other elements, *e.g.*, hydrogen, nitrogen, carbon, sulphur, phosphorus.

Chemical substances help to break up the rocks as much as mechanical agencies. For

example, limestone rocks are not much amenable to mechanical agencies but they are easily dissolved by carbonic acid. The chemical action is further helped by the little plants on the rocks and stones, which send their roots into every cranny. These roots secrete oxalic acid which is a powerful solvent eating into the structure of the rock. The roots also have a mechanical effect. Their pressure is so great that no rock can resist it. When the plants die, in the process of decay they bring about certain chemical changes. This vegetable "humus" is an essential part of the normal soil, without which it cannot be arable land. The proper mixing up of this humus with the various rock substances makes the soil fertile.

The final work is done by the biological elements. These are so called because they are living organisms, both animal and vegetable. Contrary to popular notions the soil is full of various kinds of bacteria. Some of these are essential to plant life. Plants like animals can take their food only in certain definite forms. Animals can feed only on plants or other animals which are so fed. It is the plants alone which can draw their sustenance directly from nature. But the chemical substances upon which plants feed must be in some definite forms. For example, nitrogen and phosphorus are essential food constituents for plants. But they can take these only when

these are in particular forms, viz., nitrate and phosphoric acid. The formation of nitrate is to a very large extent due to the action of bacteria. The work is done by several varieties of bacteria, each of which does a portion of the work. The most important of these are called the "nitrifying" bacteria, the special function of which is to draw nitrogen from the air and soil, and convert it into nitrate, the form which plants can absorb. For this work leguminous plants are very important. In the nodules of the roots of such plants the nitrifying bacteria store up nitrate. The roots of leguminous plants with these nodules are ploughed into the soil which thus becomes rich in nitrate and which will then support ordinary vegetable life. The existence of the bacteria which are beneficial to plant life is absolutely essential. Thus certain German lands which were very rich in chemical substances and mechanical properties suitable for agriculture but deficient in the particular type of bacteria were very poor in yield. Their productivity has been considerably increased by artificial supply of such bacteria, and now they form part of the best agricultural lands in Germany.

IRRIGATION.

In India irrigation is undertaken systematically in only a few parts of the country.

Out of a total cultivated area of 275 million acres, including current fallows of 52 million acres, the irrigated area is only 49 millions, that is, only 18 per cent. Of these again irrigation in the scientific meaning of the word does not exist in all parts. In the rest of India the cultivator ploughs the land and sows the seed as his forefathers did thousands of years ago. After that his function is mainly to look up to the gods for rain or drought or flood. This is not pursuing a profession. It is agriculture by gambling in rains. It is necessary to distribute water according to the needs of the soil and the crops standing on it, supplement the rainfall by supplying the required water by irrigation, drain the land if there be too much rainfall and consequent flood, and, by irrigation, be, as far as possible, independent of rainfall by devising means of an artificial but regulated supply of water. The effect of such a system of irrigation is best seen in the Punjab where canal irrigation has, within a generation, converted a traditionally arid land into one of the best lands in India. The Ganges-Jumna Doab together with the hinterland on either side is similarly fed by irrigation canals constructed from two of the most constant rivers in India. In Southern India too there is canal irrigation, especially in Orissa and Madras. In Mysore the river Cauvery is being utilised, and a huge dam, the

second biggest in the world, has been constructed, and the waters will be used to irrigate the agricultural lands of the Mysore State. But in Southern India, owing to the nature of the soil, tank irrigation is more suitable. Water is held in reservoirs, natural or artificial, during the rainy season, and is used in the course of the year. Sometimes what is known as overflow irrigation is preferred in these parts. The need of Bengal is different. Most of the lands here receive a plentiful supply of rainfall, and they are, especially in East and South Bengal, flooded with water. This is very good for jute and rice crops. What is necessary is the regulation of this natural drainage, so that all lands may participate in the advantages. This need is urgent in Northern Bengal. In the rest of India, that is, in the middle part of the sub-continent, there are not overflowing rivers, nor indeed any constant river system; neither is the soil suitable for constructing reservoirs for purposes of irrigation. But these regions are particularly rich in underground water channels, so that well irrigation is the easiest thing in these parts. There is scarcely any part here, including the higher regions on the Vindhya, where underground water is not available within easy depths.

The control and the management of most of the important irrigation works are in the hands of Government, and this is undoubtedly

one of the most efficient work which Government are doing. Wells are all privately owned, and Government help the agriculturists to dig wells by giving them *takavi* loans. But this system has not developed well irrigation as much as might be desired. This may be attributed partly to the paucity of Government funds used in this behalf, and partly to the inertia of the agriculturists themselves. The extreme subdivision and fragmentation of agricultural holdings is also responsible, to no small extent, for the unsatisfactory development of well irrigation. Also there is not the requisite amount of concerted action among the agriculturists and those who work on their behalf.

Here also it seems that an important problem is that of attracting capital. Government help by granting *takavi* loans can never be to the desirable extent. Funds must be raised otherwise, and this can be for the ultimate good of the country only if the organisation is on a business footing, that is, the capital invested must earn a reasonable return. From experience in various parts of India it appears that the enterprise is highly profitable as a business endeavour. This shows that, under proper organisation and co-ordination of efforts between the villagers and the capitalist middlemen, well irrigation can be widely extended in India.

When this problem is tackled another follows in its wake, viz.; the problem of a more rapid lifting of water from wells on an extensive scale. The present method is too crude to be very effective. But if the problem of sinking wells be properly handled, the work of water lifting will improve inasmuch as mechanical devices may be introduced for lifting water.* The system of tube wells will probably help to solve this problem to some extent.

MANURE.

Besides irrigation the soil can be improved by manuring it. Owing to the ignorance of the Indian cultivators and the want of funds at their command, very little is now done towards manuring the soil. But this is so important a problem that it must be tackled if the main industry of India is not to remain moribund.

Usually the soil is gradually exhausted of some chemical substances which feed the crops. Different crops do this differently, and some crops even replenish to the soil what others take away. Thus a proper rotation of crops can prevent a rapid exhaustion of the soil with regard to some chemical substances.

* Vide Report of the Indian Industrial Commission, pages 59-60.

But the best guarantee against soil deterioration is to supply directly to the land what is deficient in it. Normally there are three things which require to be artificially supplied to land, viz., nitrogen, phosphoric acid, and potassium. Sometimes it is necessary to add lime also. Nitrogen is supplied to land by nature to some extent through rainfall, soil erosion, silts, etc. In India nitrogen is artificially supplied to the soil usually by growing a leguminous plant, *e.g.*, gram, on it, and while the crop is yet green and standing on the soil, it is ploughed into the soil. This helps the soil to have nitrate which such plants contain in the nodules of their roots as a result of the ceaseless work of the nitrifying bacteria. In more advanced systems of agriculture nitrogen is supplied differently in some mineral form, *e.g.*, nitrate of soda, sulphate of ammonia, etc. Phosphoric acid is the most important thing of the soil, which is exhausted by every kind of crop. It is very necessary that this should be restored to the soil. But, unfortunately, there is no such practice in wide use in India. Hence experts think that the Indian soil is most deficient in phosphorus. This is supplied to the soil of other countries in the form of superphosphates. These may be made from bones, called bone-meal, or from the mineral, tricalcic phosphate of lime. Phosphate of lime is very efficacious probably because it

gives lime also, although its effect is not so immediate as, for example, that of bone-meal. A deficiency in potassium can be made up by feeding the soil with some variety of the many mineral salts of potassium. Usually kainite is used to supply potash to the soil. There are also various other things which are taken out of the soil by the crops, but usually these are in such abundance in the soil or are so easily replenished by natural processes that there is little need for restoring them to the soil by artificial means.

Here it should be noted that desirable results can be obtained only by manuring the soil with the proper proportion of all the necessary constituents of the soil. Hence there is the need of soil analysis in order to find its deficiencies. Otherwise the quantity of one item may be more than what is necessary, while that of another may not be enough. Just as a proportionately large amount of capital or labour or land, when combined with an insufficient quantity of the other factors of production, would mean that the excessive quantity of the former will remain unutilised to the full and thus be wasted partially, so also the want of proper care may lead to such a wastage in applying the manure to the soil if the proper elements are not given in the right proportion. Therefore, the success or failure of any experiment

with a particular manure does not prove any thing so long as all varieties are not given in the necessary form and proportion. Sometimes a manure rich in nitrogen or potassium or phosphorus yields satisfactory results, sometimes it does not. This only shows that in the former case the other constituents existed in the soil, whereas in the latter case they did not. Therefore, to be effective, soil analysis is essential for right manuring. Hence it is desirable that Government, through their agricultural farms, should provide for all facilities for soil analysis throughout the whole country, and find out the deficiencies in the soil in different parts of the country. The results of such analyses should be made available and known to the cultivators in their villages. It is not enough to publish them in scientific books or journals like the Proceedings of the Agricultural Institute or the Agricultural Ledger. Such practical information should be distributed broadcast through pamphlets in the vernacular languages or through peripatetic lecturing bodies who will carry the results of soil analysis and the knowledge of restoring the soil, to the remote villagers. At the same time all facilities should be given by which the cultivators will be encouraged to have their soils analysed and avail themselves of the expert knowledge of the Government agricultural farms.

In India most of the cultivated lands are deficient in phosphorus. The reason is not far to seek. The most important manure which is used is the dung of cattle, although only a tithe of the total dung is utilised for this purpose. But of all the chemical substances of the soil, which cattle absorb from the plants eaten,—and these latter are rich in those elements of which they rob the soil,—little of phosphorus is found in the dung inasmuch as phosphorus is mostly drawn away as a constituent of the blood and milk. Therefore, the effect is cumulative. The milk deteriorates in quality at the same time that the soil deteriorates in phosphorus, thereby making useless a portion of the nitrogen and potassium with which the soil may be artificially replenished. It appears therefore that a good manure in India would consist of dung supplemented by the necessary quantity of phosphorus in some form. One of such forms, although not so effective, is cattle urine which is not utilised now in India.

Except for its deficiency in phosphorus dung is the best manure easily available. But unfortunately dung is so widely used in India as fuel that only a small proportion of the total quantity produced is actually used as manure, the rest being burnt as fuel. And this, in spite of the fact that the use of dung as manure is much greater than its use as fuel.

This state of things is partly the result of ignorance and habit, but more of the reckless policy of cutting down forests which might otherwise be used for supplying cheap fuel to the rural population. Thus a right policy of re-afforestation is vitally connected with the regeneration of agriculture on a scientific basis.

Dis-afforestation has injured the lands in another way also. It is well-known that forests and grass lands stem the rushing tide of torrential rains and thus prevent the denudation of the surface silts which contribute so much to the fertilisation of all lands. The ever increasing amount of arid land in the northern and western parts of the United Provinces of Agra and Oudh, especially the district of Etawah, is attributed to rapid dis-afforestation. Trowscoed says: "The forests where the Emperor Baber hunted the rhinoceros are now a waterless tangle of ravines", and "the beautiful country along the Foot Hills is now buried under sand and gravel".* According to this writer this devastation of the land is due to "fire and axe". By river-bed erosion the Jumna has been lowered fifty feet during the last five hundred years because the torrents are unhampered by the roots of plants and trees which have been indiscriminately destroyed. The result is that in the district of

* Article in the Indian Forester, August, 1921.

Etawah the desert is rapidly increasing. The rate is calculated to be two hundred and fifty acres per annum. The same is the case in the Terai lands of Saharanpur. All this is due to the opening up of ravines by torrents of rain, which are unchecked owing to the policy or want of policy in dis-afforestation.*

Thus it will be realised that one of the means of preserving our agricultural lands as also of releasing dung to be used as manure is to develop our forests. This development for the purpose is not so difficult or costly as is ordinarily imagined. Nor does it take very long time to do so. According to experts *babul*, *shisham*, *teak*, etc., grow to a height of between twelve and twenty feet in three years.† On the hills the *eucalyptus globulus* grows quickly, and in dry lands *tamarix* is such a tree.‡ All the above trees are especially suitable for use as fuel. Therefore, a proper policy of re-afforestation in the neighbourhood of villages or groups of villages, with the object of supplying cheap fuel to the rural people and grazing lands to their cattle, will help a wider use of cattle dung as manure for agricultural lands.

* The Agricultural Journal of India: Article on the Afforestation of Etawah by Benskin, page 685.

† E. A. Smythies, I.F.S., on the afforestation of Etawah.

‡ R. S. Troup's Silviculture in India, 3 vols.

We would now give some illustrations of the results of experiments carried on in India by agricultural experts. In estimating their practical use to our agricultural system it is necessary to make proper allowance for the great care which is taken by our experts in their experiments and the like of which the ordinary cultivator can never be expected to do. In this direction our cultivators no doubt require to be improved but in spite of all probable improvement they can never afford to be as careful as the agricultural farms under the experts. The accompanying table shows the results of some of the experiments made in India.

It is important to note that the given increase should be realised in terms of the costs of manuring as compared with the value of the increase in the output. The increase in the output should be taken as less on the farmer's own land than on the agricultural farms under the management and supervision of experts. Calculating even without this latter consideration it will be seen from the attached table that in many cases the cost of manure is too high in comparison with the increase in output. In some cases the cost is even greater than the increased value obtained. Take, for example, the third experiment under wheat, that is, C. 3. in the table, where the increase in the output is the greatest under

Output per acre	Without manure.	With manure.	Percentage increase in output on un-manured crop.
A. RICE :—			
* 1. Grain	lbs. 1,374	100 mds. Cowdung per acre	159
Straw	lbs. 2,174	lbs. 3,556 ...	106
		lbs. 4,479 ...	
		3 mds. Bone-meal, 30 srs. Salt-petre.	
* 2. Grain	lbs. 1,374	lbs. 4,389 ...	219
Straw	lbs. 2,174	lbs. 6,178 ...	184
		2 tons Ashes, 8 cwt. Bone-meal, 12 tons Dung.	
* 3. Grain	lbs. 1,084	lbs. 3,484 ...	220
Straw	lbs. 840	lbs. 2,464 ...	193

* John Kenny's Intensive Farming in India. He gives the results of experiments made by many others. The illustrations quoted give his own results and some of those obtained by Newman, Davis, Dr. Leather, and others.

Output per acre	Without manure	With manure.	Percentage increase in output on un-manured crop.
* 4. Grain Straw	1½ cwt. Ground-nut, ½ cwt. Bone-meal, 75 lbs. Kainite. lbs. 1,337 ... bundles 22 ...	227 144
B. Cotton :—		4 tons Cattle dung.	.
* 1. Crop	lbs. 80 ...	60
* 2. Crop	1 cwt. Nitrate of Soda, 1 cwt. Superphosphates, 1 cwt. Kainite. lbs. 150 ...	. 200
* 3. Crop	2 cwt. Ground-nut Cake, 2 cwt. Superphosphates, 2 cwt. Kainite lbs. 200 ...	. 300

* John Kenny's Intensive Farming in India.

Output per acre	Without manure.	With manure.	Percentage increase in output on un-manured crop.
C. WHEAT :—			
* 1. Grain ...	lbs. 1,083	Poudrette or dry human excreta lbs. 1,603 ...	48
† 2. Grain ...	lbs. 820	3 mds. Saltpetre. lbs. 1,558 ...	90
* 3. Grain ...	lbs. 900	14 tons Farmyard Manure. lbs. 1,980 ...	120
D. POTATO :—			
* 1. Crop ...	bushels 145	158 lbs. Chili Saltpetre, 440 lbs. Superphosphates, 158 lbs. Sulphate of Potash. bushels 349	150

* John Kenny's Intensive Farming in India.

† T. Basu's article in the Agricultural Ledger, No. 10, 1893.

Output per acre	Without manure.	With manure.	Percentage increase in output on un-manured crop.
E. OATS :—			
* 1. Grain Straw	... ... lbs. 562 lbs. 1,175	Green Manure and Superphos- phates. lbs. 1,451 ... lbs. 2,330 ...	140 98
† 2. 1st year 2nd year 3rd year	... ... ...	Green Manure and Superphos- phates. lbs. 960 ... lbs. 1,560 ... lbs. 1,840 ...	... 62 91
F. MAIZE :—			
† 1. Grain * 2. Grain Straw	... ... ... lbs. 492 lbs. 752 lbs. 1,732	Green Manure and Superphos- phates. lbs. 1,599 ... lbs. 1,458 ... lbs. 2,841 ...	225 94 64

N.B.—The numbers indicate different experiments.

* Proceedings of the Board of Agriculture at Pusa, December 1, 1919.

† A Study of the Indigo Soils of Bihar by W. A. Davis, published by the Agricultural Research Institute, Pusa.

wheat. This is 1,080 lbs. or a little more than 13 mds., the price of which will be about Rs. 80. To raise this extra amount 14 tons of farmyard manure was used, the price of which will be more than Rs. 80. On the other hand, take the first experiment under rice, that is, A. 1., where the increased output is 2,132 lbs. or $26\frac{1}{2}$ mds., the price of which will be about Rs. 150. The manure used was 100 mds. of cowdung, the price of which will be about Rs. 50; thus leaving the substantial net profit of about Rs. 100 per acre. From this some deduction is to be made for the want of the same care on the part of the cultivator.

It seems that experiments which do not care much for cost are merely academic in their interests, and have little practical importance. Nor does the manure used show any result unless it is known what was the result of soil analysis of the particular land to which the manure has been applied. What is necessary is to find out the maximum efficiency point at which a particular soil with known deficiencies will raise the maximum crop with the minimum manure, or rather the maximum value of crops with the minimum cost of manure used. In many cases this viewpoint is maintained with good practical results. It is necessary to emphasise this in all cases. For the use of those readers who want to work out

the problem in the above table I give the approximate prices of manures which have been widely used in Government agricultural farms in India.* For phosphorus, nitrogen, and potash, the manures usually used in the above experiments were respectively superphosphates (Rs. 2 per maund), Chili nitrate (Rs. 4-8 per maund), and kainite (Rs. 2 per maund).

Finally, in attempting improvements of the agricultural system of India, whether by soil improvement or by introducing improved implements and machinery, especially the latter, one caution is necessary. The full significance of that can only be realised by those who are actually handling the problem in its entirety and not one aspect of it merely. "In India there is an agricultural practice built up on the traditional custom of years and in which reside, though unexpressed and unexplained, deep scientific principles, the reasons for which can only gradually be elucidated".* It is necessary to attempt unravelling these mysteries in order to preserve what is best in the present system, so that what is really good may not be destroyed by the iconoclastic zeal for improvement on the part of the technical scientist or the lay worker on behalf of the cultivator.

* Mackenna : Agriculture in India.

IMPROVEMENTS IN ORGANISATION.

Improvements in organisation help improvements of agriculture in two ways. Better organisation can facilitate the improvement of the soil and the increase in the area under cultivation. Secondly, it can bring about a redistribution of the present income from land so as to enable the cultivator to retain more than what he does now.

Under the first head will come all means by which any portion of the 113 million acres of land which is now waste but which is cultivable can be made available for actual cultivation. Some of this land can be brought under cultivation by developing easy means of communication. Information in this behalf and facilities to settle on such land should be organised in order to induce people from more congested parts of the country to migrate to these parts. In this way many places are being developed, *e.g.*, parts of Assam and Burma. By developing such lands by means, for example, of irrigation not only has the output been increased but a greater population has been attracted, *e.g.*, in the Punjab and Sindh.

. Again, such organisation is necessary to introduce improvement of the soil. The most important organisation is the co-operative credit society. In India co-operative credit

societies are developing rapidly although their number is yet insignificant in the vast country. But these societies are mostly based on the Raiffeisen principle, the object of which is to protect the cultivators from the exactions of the local usurers. The loans are for short periods only and based on personal credit. Apparently no permanent improvement of the land can be undertaken by means of short-term loans, nor can long-term loans be granted on personal credit only. Therefore, for the improvement of agricultural lands in India, organisations of the type of the *Landschaften* in Germany are needed. These grant long-term loans for permanent agricultural improvements on the security of the land itself. Such loans can be given on the understanding that the Society will have the right to see that the money is spent for the purpose for which loans have been sanctioned. The borrower is required to pay interest for the loan, a small charge towards the reserve fund and the cost of maintenance of the Society, and a portion of the principal which is necessary to extinguish the debt at the expiry of the period for which the loan has been granted.

Such organisations are voluntary in Germany but are helped and encouraged by Government. In India ordinary co-operative credit societies depend for their main support upon the Government of the country. The

reason is not far to seek. The people who are to be benefited by the system are mainly the rural folk who are ignorant about the affairs of such institutions. Moreover, owing to the poor condition of the country it is difficult to find sufficient men with leisure to devote their time and services to such work. Further, the extreme illiteracy of the people makes it difficult to find men to check and supervise the work of the officials of the Societies. And it is such direct participation in their working which can create an abiding interest in these institutions.

Thus it cannot be expected that new organisations of the type of the German *Land-schaften* will be introduced in India without Government initiative and support. It is a mistake to suppose that these can be opened only when the other type has developed in the country. The two types must go together in order that either may be effective. Also, such new Societies cannot grow at all without at least some legislative help from Government. For the landed property to be used as a security for loans in the case of such institutions, certain conditions must be brought about which can exist only by legislation in that behalf. For example, there must be a public register showing the titles to lands as also the existing charges on them. Without this the existing liabilities of any land cannot be defi-

nately ascertained and therefore the amount which can safely be lent against that land remains uncertain. Thus all mortgages or other liabilities on the land, whether anterior or subsequent to the loan, must be compulsorily shown in the register. The claims of the Society should have priority over all claims not so entered or entered subsequent to the loan granted by the Society. This can apparently be enforced only by proper legislation to that effect. Again, it is essential for the success of any such organisation that ready and cheap methods should be provided for the recovery of debts as also, in the required cases, for the sale of the pledged property of the borrower. Government help is probably necessary for the right valuation of the lands which are accepted as pledges for loans.

Such institutions, if properly organised, can bring about immense improvements of the land. The advantages are many and widespread. (1) The cultivator will welcome the system because he is freed from the present contingency of being suddenly asked to repay his debt to the moneylender (such loans are renewed but granted for short periods only and often payable on demand), when he has sunk capital in his land which can repay itself with profit only if he can wait for a long period during which the full effects of the improvements would accrue to him. For example, if

he provides for irrigation, drainage, fencing, or even improved implements, machinery, or cattle, the return will come to him spread over some length of time. Therefore, the time for repaying the loan should vary according to the particular way in which he applies the borrowed capital. The Society can lend money for such long periods because the land is pledged to it, and, in case of inability on the part of the cultivator to repay, the land can be easily transferred to another before the effects of the improvements are exhausted, since transfer of such lands will have been facilitated by law and since the repayment is to be by instalments, each of which must be paid in due time, failing which the Society will take steps towards their collection or towards the transfer of the land to another who can pay regularly. (2) The moneylender or the capitalist will welcome such a Society because he can never rely on the punctuality of the cultivator* and because he will now have to depend upon the credit not of an individual about whose affairs his knowledge can never be very

*. "Landed security is good, but not easily or rapidly realisable ; debtors are uneducated and have no idea of business methods or of punctuality in meeting their obligations ;.....and, partly in self-protection, the *mahajan* charges a rate of interest which local custom readily tolerates."—Report of the Indian Industrial Commission, page 211.

minute, but upon that of an association whose credit will be the joint credit of all its members, besides its prestige as being supported by Government. Also, the trouble of examining the securities of individuals is obviated by the substitution of the Society as his debtor, which will undertake this work with much greater facility if the conditions explained above be brought about by necessary legislation. In such circumstances it is to be expected that, with greater credit and less trouble and risk of loss, the moneylender's charge for interest will also fall. This fall will mainly go to the borrowing cultivators since the Society will be of the co-operative credit variety. (3) Finally, this will bring many and various benefits to the community at large. The burdens on all lands, particularly the cultivators and the small proprietors of lands, will be considerably reduced at the same time that the improvements adumbrated in the early parts of this chapter will be realised. With the improvement of agricultural lands, their value will naturally increase. This will improve the condition of all proprietors of lands as also that of the non-proprietor cultivators if suitable arrangements are made in tenancy laws which will retain to them the effects of their improvements. Again, the improvements which can be introduced now are only minor and secondary. With the adoption of this system

the expenditure on permanent agricultural improvements will be more liberal and to that extent the country will be benefited. The producers will be directly benefited by the increased output and the general body of the people will participate in the advantages in the form of lower prices of agricultural products unless of course there is a proportionately greater increase in the population. Also, raw materials in the form of agricultural output will be cheaper; this will stimulate industries dependent on agricultural products for their raw materials. This improved condition of the rural classes will naturally react on another problem, viz., that of the thoughtless immigration from country districts to large towns on the off-chance of earning a living there. The sudden and more or less unexpected release of the rural labourers from all bonds of social ties which exist in the villages probably in too great a degree but which practically do not exist in the new urban environments has not always been very happy, especially in their moral effect. With greater premeditation in migration this also may be partially remedied. Further, the prosperity of the rural classes will naturally react upon all classes of the labouring population of the country, and this will make the people better payers of indirect taxes on the articles of general consumption. Thus Government revenue will automatically swell

with such improvements. Finally, there will be a check, partially at any rate, upon a vicious system which prevails in India, especially in Bengal, Bombay, Bihar, and the United Provinces. Now there is excessive subdivision of agricultural holdings, which often makes profitable cultivation impossible. The reasons are several, the most important being a rigid adherence to the letter of the law of inheritance and the attempt on the part of all to live on land. Another important cause is the extreme indebtedness of the rural classes. This compels them to repay their debts by selling or surrendering a portion of their holdings. The temporary effect is to lighten the burden of their debts, but the more permanent effect is to involve them in greater debts inasmuch as the same family or families must now live on a smaller land. Under the proposed system of developing lands there will be no such pressing debt to be repaid, its amount being earned from the improvements made on land and its repayment with interest being settled on terms of easy instalments.

Another means of introducing such improvements of land, besides the institutions based on the principle of *Landschaften*, is to organise co-operative purchase stores in rural areas. These may be utilised for buying consumption articles. But their work in behalf of land improvements should be to

purchase improved agricultural implements, better manure, cattle, seeds, etc. The principle will be co-operative, not necessarily based on the credit system, although the latter will be more effective inasmuch as it will allow the buyers to make payments out of the increased income derived from the use of better implements, cattle, manure, seeds, etc. Such organisations can only be instituted on the initiative and direction of Government for the same reason for which co-operative societies and *Landschaften* require Government help. Government help should, in the beginning at any rate, be given to them in the form of loans with Government money just as it was given and, in many parts of India, is even now being given.

In this connection it is worthy of note that some Government measures have indirectly retarded the progress of rural areas. In some parts of India, for example, in the Punjab, Bundelkhand, Chhota Nagpur, and certain parts of Bombay and the Central Provinces, law forbids the alienation of agricultural lands to non-agricultural classes. Unless this be accompanied by adequate provisions for credit, it merely means a fall in the value of land and creates greater difficulties in finance for the cultivators. The extraordinary development of the Punjab and Sind irrigated areas has not affected these parts so badly but

inherently the measure is defective. Some other means must therefore be devised to prevent the transfer of agricultural lands to the moneylending classes who never intend to cultivate their lands themselves. If that be not practicable the present law should yet be dropped. Another such defective law which undermines both the morality and the material prosperity of the borrowers is the Usurious Loans Act of 1918.*

The above methods of helping the cultivators by having co-operative societies of various kinds will also help the cultivators in receiving a greater share of agricultural profits. But more direct methods require to be devised to bring about a redistribution of the income from lands, by which the cultivators can get more of it than they do now. At the outset a warning needs to be repeated that the exploitation of the cultivators by the middlemen traders is not so great as is popularly supposed.† In most cases the exploitation is more oppressive from the landlords or middlemen holders of agricultural lands above the actual cultivators. Thus improvements in this behalf should proceed along two independent lines. The systems of land tenure

* Vide *infra* Chapter 6.

† Vide *infra* Chapter 3.

and the tenancy laws should be so modified as to help the cultivators out of a substantial portion of the present burden of rents and other dues, which varies according to the rapacity of the middlemen tenure-holders or the ease with which the law can be dodged. Besides, there are many illegal exactions on the part of the landlords or their officials. Such practical oppressions must be stopped if the cultivators are to be improved in their material condition and moral outlook. It seems to the present writer that one of the methods of doing so is to amend the tenancy laws in order to give greater proprietary rights in land to the actual cultivators. Insecurity of tenure is an effective weapon to compel the cultivators to submit to illegal exactions for the purpose of keeping their hold on lands which can be transferred from them to others on some pretext or other. On the other hand, the danger is that, with the security of tenure, the cultivator tends to develop into a middleman tenure-holder by sub-letting his land to others and thus becoming himself a "rent-eater." Thus the change in the law should provide for certain general rights of the actual tiller of the soil, whoever he may be, including the regular workers on land who are now employed by the cultivator himself. This will effectively check such sub-letting inas-

much as the present holder will gain nothing by doing so.*

Secondly, there is now an excessive handling of crops by the middlemen traders in moving them from the fields to the ports or the internal distributing centres. There is no doubt that more of the income from lands can be retained by the cultivators with a little organisation. For this purpose the organisation of co-operative sales' associations is imperative. These need not be separate from the co-operative purchase stores. These associations will finance the cultivators till their products can be sold in the best markets. Such bodies will naturally find the customers coming to their doors for making purchases since they can find a large stock from which to choose, and these associations can bargain for much better prices than individual cultivators can ever hope to do with their pressing needs for cash to pay the moneylender, the landlord, and Government, and to find money for their ordinary expenses as also many extravagant expenses often required by social or religious customs.

Another method by which the cultivator can earn more is to market his goods after passing them through some of the minor processes through which they are carried later on

* Vide *infra* Chapter 2.

and which can be done without much organisation and expense. He "can prepare crops for the market in the most profitable form. This includes such operations as fibre and oil extraction, wheat grinding, paddy husking, coffee pulping, tea manufacture, and, most important of all, sugarcane crushing."* He may also "prepare materials required for agriculture, such as bone meal for manure, and crushed or chopped cattle food."* Such work on the part of the cultivator will increase his income very much without much cost or loss of time. This will also solve the important problem of providing supplementary occupation to him since during certain parts of the year he remains compulsorily idle. Moreover, the transport charges will be reduced inasmuch as the raw things are always heavier and more bulky than the part-manufactured articles. Further, the by-products which are often of great value to him, e.g., oil cakes, and which now leave him along with the raw things, will be left to him to be utilised for his requirements.

Finally, it requires to be emphasised again that the above suggestions can be more effectively carried out if attempts be made simultaneously along all the lines instead of being confined to a few only. Piecemeal

* Report of the Indian Industrial Commission, page 59.

development is impossible in any department of life. It is especially so when the various branches of economic development are so closely related to and so interdependent upon one another. Therefore, there is the need for organised effort which, in a country like India as probably in all countries, can be successful only if the initiative and the driving force come from the Government of the country.

CHAPTER II.

THE PERMANENT SETTLEMENT OF LAND REVENUE.

The permanent settlement of land revenue was introduced in India, as both an economic and a political measure in 1793. The political aspect consisted in the fact that in those days, when British administration had not been so well established, Government could not be sure of realising land revenue from the cultivators of the soil. Therefore, to attain certainty in realisation and to have a body of persons responsible for that work alone, the system was introduced at that time. The economic aspect lay in the fact that the land revenue formed all along in the history of India a most important part of Government revenue. But the nature of the land settlement as it was made at the time was far from satisfactory. In India, in the past, rights on land have all along been considered to have remained in the actual cultivators of the soil, subject always to the sovereign right of the State to demand a proportionate share of the output as land revenue. No middleman between these two bodies was ever recognised as having any proprietary right on land. The permanent settlement recognised the proprietary right of three

bodies and the most important of these was the farmers of revenue under the Moghul empire, who had no right on land beyond that of collecting its revenue for the Imperial Exchequer. Their position was analogous to the financiers of France in the eighteenth century. Lord Cornwallis, who introduced the system in India and who knew little of the history of the country, was carried away by a false analogy between the Indian farmer of land revenue and the English landlord. Hence he introduced the system by which full proprietary right in land as it existed in England at that time was vested in the then existing farmers of revenue. The mistake could be made because, owing to the disintegration of the Moghul empire, the practical autonomy enjoyed by all subordinate institutions within the empire had also enabled the farmers of land revenue to arrogate to themselves and exercise powers which were wholly beyond those with which they had been originally invested. Even then Government recognised that right on land remained with themselves, the *zamindars*, and the cultivators, as can be seen from the Act of 1793. Government were concerned in fixing the relation between themselves and the *zamindars* only, leaving the relation between the latter and the cultivators or tenants to be settled by private contract. But, fortunately, in the Act itself,

a right was reserved to Government, by which they could in future interfere on behalf of the tenants whenever they would consider the attitude of the *zamindars* to be antagonistic to the interests of their tenants. It is through this provision that the Tenancy Act of the present time could be introduced. Be it said to the credit of Sir John Shore that it was he who insisted on this provision.

Another mistake which was made in the determination of land revenue was that the amount of it was specifically fixed. This is partly due to ignorance of general economic principles which did not develop so well at the time. At present it is well-known that, with the growth of society, the value of land, even without any improvements made on it, goes on increasing steadily. Yet in those days Government before committing themselves to such a policy which was expected to bind future governments should have considered its effects fully as it was an absolutely novel measure in the history of civilised man. Experience gathered from other parts of the world might have been utilised. But Cornwallis, after arguing for a long time with Shore, decided to fix the amount in a definite, unchangeable sum of money. His arguments do not show any advantage of the fixed amount and the hurry with which he carried his measure.

There were at least two better systems which might have been adopted. The periodical assessment, that is, assessment which is fixed only for a definite period of time, would have been the best course. This was actually the system followed till 1793, but the defect in its working in India consisted in the fact that the period during which the assessment remained fixed was too short. In the time of Warren Hastings for some time it was even annual. Another system which stands between the periodical assessment and the system adopted in 1793 is the system of a fixed proportion of the output of land taken as land revenue. This system is better than the system of a fixed amount inasmuch as it gives sufficient scope for the land revenue to expand along with the expansion of land values. But this system is not so good as the system of periodical assessment inasmuch as the latter fixes the amount definitely for a period whereas under the former system the land revenue of Government and therefore public income would vary annually according to the nature of the season. The second system, namely, of fixed proportion was the system prevalent in India for a very long time. In fact, except in particular localities where there were more or less exceptional circumstances, this system is the only one found in the history of land revenue in India. Thus these two

systems both of which are better than the permanent settlement existed as examples for Cornwallis to adopt.

The incidental object of the permanent settlement was to create a landed aristocracy which would support the Government both in administration and in maintaining the stability of society. In this, however, it altogether failed because, except about half a dozen big *zamindaries*, all changed hands within a few decades of the inauguration of the permanent settlement. The reason was that the land revenue as it had been fixed was extraordinarily heavy. Out of a total rental estimated at a little over five crores of rupees about four and half crores was fixed as the land revenue. Coupled with this were certain laws of procedure by which the sale of land was facilitated, especially on failure to pay the revenue within a certain time. Almost all the landlords suffered, the bigger ones were reduced in the extent of their holdings and the large body of smaller ones had to sell out their lands. The result was that a new class of people who had grown rich in other ways and who had little knowledge of the management of landed properties and had no idea of the traditional relationship between the *zamindars* and the tenants came to administer landed property. The inevitable effect of this course was that this *parvenu* aristocracy had little

sympathy with and no interest in the prosperity of the tenants except as rent-yielders. This fact combined with the heavy demand of Government made the new class of landlords one of the most rapacious of its kind. When Government in the time of Cornwallis and Wellesley were involved in wars the need of certainty in realising land revenue became more imperative than ever. Also Government could exercise little supervision over the conduct of the landlords, nor in such circumstances of war and incidental confusion could Government perform such functions adequately because the conduct of the landlords towards their tenants was a matter which was to be seen throughout the whole country, especially in the villages, whereas Government had their centres in only a few big towns. This led Wellesley to give the *zamindars* much greater powers than had been contemplated in 1793. For example, they had the power of distraint when the tenants failed to meet their heavy demands. Even the right of private imprisonment was granted to them. There is little to be surprised at that the Parliamentary Committee on Indian Affairs (1812-1813) found grave abuses of their powers by the *zamindars*. This made Government cautious in fulfilling their original intention of extending the system of permanent settlement to other parts of India. For a long time Government were

uncertain and vacillating. However, in 1859 as a result of continued pressure from the local landlords, the permanent settlement was extended to Oudh. The discussion still went on, and after carefully going through the whole question between 1862 and 1865 Sir Charles Wood, Secretary of State for India, vetoed the proposal of further extension of the system. The final decision was taken by Government in the eighties of the last century.

The evils of the permanent settlement are at present quite obvious. The first is that the tenantry as a class are more or less rack-rented. (u) This is proved by the fact that the need for tenancy laws to protect the interests of the tenants was first felt in the permanently settled areas. Subsequently such laws have been extended to other parts of India. An innovation along this line was introduced in the present century in the laws restricting the transfer of lands from agricultural to non-agricultural classes in the Punjab, Bundelkhand, Chhota Nagpur, and some parts of Bombay and the Central Provinces. In their enthusiasm to protect the cultivators Government prohibited this alienation. In the absence of any measure to supply the cultivators with sufficient credit the result has been decrease in the borrowing power of the latter. This is a serious thing in a country where cultivators are largely debtors. It is apparent

that the realisation of this fact has induced Government to abandon the original idea of enacting similar laws for the rest of India.

Another evil, though not inherent in the permanent settlement, is the system of extorting abwabs and mathots, that is, illegal exactions from the tenants on the part of the landlords. In 1793 these were declared illegal, but, according to the Imperial Gazetteer, even now more than forty-five kinds of these exactions exist in Bengal alone. So long as the tenants have little recognised rights upon land, so long as they remain as poor and ignorant as they are, such extortionate illegal demands can be got out of them if the landlords are unscrupulous enough to do so. It is a matter for regret that, with some honourable exceptions, in most places where there is the permanent settlement such exactions are by no means rare. This is especially so where the number of middlemen tenure-holders is large.

A third evil which is even graver from the point of view of Government finance is that revenue from land in such areas is a fixed amount of money. At present the value of land has gone up very much so that the total rental in the permanently settled areas is estimated at about twenty crores of rupees, whereas the land revenue is only four and half crores. Thus the incidence of land revenue

has gone down from ninety-two per cent. in 1793 to less than twenty-five per cent. of the total rental. Hence not only do Government lose the elasticity of their revenue in regard to their most important source of income but this amount goes to a body of middlemen tenure-holders who are nothing but parasites batten-
ing upon society. Thus the surplus does not go to Government to swell their revenue and therefore to enable them to reduce the burden of taxation on the community in general nor does it go to the actual cultivators of the soil who would be prosperous and therefore better able to contribute more, through indirect taxes on articles of consumption, towards the expenses of Government. About fifteen crores of rupees are thus lost to the country, which come out of its products but do not confer prosperity either upon the State or upon the producers. This is not only a great waste but it also affects the question of just distribution of the national dividend. Such a question cannot remain as it is in India. Already signs are not wanting that the more advanced as also the cultivating classes and those who understand and voice their grievances have considered the problem and condemned the whole system.

The fourth evil resulting from the permanent settlement is the large number of middlemen landlords coming between the

superior landlord and the cultivators. These enjoy the income from land but do not in any way contribute towards the development either of agriculture or of the conditions of the peasants in general. In Bengal in some cases there are as many as thirty such middlemen who among themselves divide the unearned increment of income derived from any one piece of land. There is nothing to be surprised at this result. The land revenue is perpetually fixed in amount whereas the rental realised from the tenants goes on increasing with the increase in the value of lands. The latter must increase with the increase in population and wealth of the country and with rise in prices. The rental goes on increasing as there is no limit except what the Tenancy Acts provide. Such limitation is comparatively recent; also the check to increase is not sufficient. The demand of the landlords grows rapidly. Thus the original cultivators who had some secure right on land find that, in the course of a generation or so, their income has increased tremendously. Therefore, they consider it convenient to become landlords by sub-letting their land to other cultivators. In this way what may be called sub-infeudation among landlords has grown and continues in the permanently settled areas. This really means an increase in the hierarchy of parasites on land. After

the introduction of the Tenancy Acts the increase in the rental has been less rapid with the result that the above process has been partially checked. Yet the evil continues to an appreciable extent.

What is more important from the point of national economy is the fact that these middlemen landlords mostly live on unearned increment of land income and rarely consider it to be either respectable or necessary to pursue any profession to earn their livelihood. Moreover, there is no effective check to further sub-letting land by the present cultivators who have secured occupancy rights on lands and who aspire to be middlemen in future. The whole system demands a drastic change. If there were no hindrance in the form of past pledges the best course would be the abolition of the permanent settlement itself. Experience gained from other parts of India shows that the temporary settlement, especially directly with the tenants, has been successful and beneficial both to the cultivating classes and to Government. In the *ryotwari* system of land tenure the cultivator is recognised as the owner of the soil subject to the superior right of the State to have its share of land revenue. The settlement is made for a definite period of time, namely, twenty, twenty-five, or thirty years. The advantage to the State consists in the fact that Government revenue does not

vary from year to year but is practically fixed in amount during the whole of that period; this is partially modified in cases of widespread and great failure of crops. The advantage to the tenants consists in the fact that they know the definite amount which they will have to pay during a comparatively long period. As this amount is fixed not in anticipation of an increase in the value of land in future but on the average value of land during the previous period, the tenants know that if they make improvements on land they will get the benefits derived therefrom, which are also excluded specifically from assessment. Also they can enjoy fully the effects of such improvements since they are not liable to be removed from land except on defaulting to pay land revenue. The burden of this revenue cannot be great. The resolution of the Government of India on the land revenue policy (1902) lays down the principle which they follow in assessing land revenue. The principle is that Government demand in *ryotwari* lands shall never be more than fifty per cent. of the net rental. This rental roughly corresponds to economic rent. Therefore, a wide margin is left to the tenants even out of what may be called unearned increment of income from land. Further, Government declare that in no circumstances will land revenue be enhanced on the ground of increase in land values as a result of improvements

made by the tenants. Certainly the principle is very sound and makes a moderate demand on the soil. What is sometimes complained of is its administration in actual settlement work by which increase in land values is measured. The justice of the principle has been recognised by such authorities as the late Gopal Krishna Gokhale. Therefore, there is no inherent fault in the system itself. What requires to be carefully watched is the administration or the practical application of the principle to the details of settlement work.

But probably it is rather late in the day to alter the permanent settlement, for the position of the landlords in the permanently settled areas is too strong for such abolition. At the same time the evils are grave and in the national interest should not be permitted to continue. As a legitimate source of revenue is diverted from the natural channel towards Government as the representative or collective expression of society, another method must be devised which, without in any way encroaching upon the present rights of the landlords, will effectively circumvent the operation of the permanent settlement. An obvious method and one which is long overdue is the imposition of heavy income tax on land incomes. In 1920 the landlords and their representatives resented and threw out a proposal of Government to the effect that in assessing incomes for

purposes of income tax the land revenue should be taken into consideration to fix the rate of income tax to be imposed only upon that portion of the individual's income which was not derived from land. This is outrageous. In Bombay the amount of land revenue is nearly double that of the revenue from income tax. In Bengal it is approximately half. Thus unearned income is taxed at considerably lower rate in the permanently settled areas than earned income. This means that trade and industry are taxed more heavily to promote the parasites who enjoy unearned income without contributing any thing either towards the expenditure of Government from whom they derive the greatest benefit by way of protection or towards the prosperity of society in general the development of which helps them to batten at the cost of the real producers of the country. If the landlords persist in claiming the permanent settlement as sacrosanct and inviolable and if they consider that they are really deserving members of society who do not rack-rent the peasantry, they should have no objection if the community propose to give to the latter what the landlords have received from Government. It will be remembered that the permanent settlement of 1793 recognised the rights of three bodies upon land. Of these the Act of 1793 fixed in perpetuity the relation between Government and the landlord, and

left, fortunately with a wise proviso, the relation between the latter and the tenant for private negotiation. It is time now that a similar measure fixing in perpetuity the rent paid by the actual cultivators to their superior landlords were passed. Care should be taken to provide that the actual cultivators of the soil, whoever they may be, should pay the amount thus fixed and nothing more. If such a law be passed the result will certainly be that the progress of further sub-letting land will immediately stop because such sub-letting will be unprofitable if the present cultivators on sub-letting can get no more than what they are paying to their superior landlords. Thus unearned increment of income from land, which has so long been diverted to the small number of middlemen landlords who form less than eight per cent. of the total population, will in future go to the cultivators who form about three-fourths of the total population. In this way unearned increment, if it cannot be made to go to the State, can be equitably distributed among a larger and more deserving class of people. This will strengthen the hands of the cultivators to a very great extent. This in its turn will help the State also inasmuch as the cultivators will be better able to pay taxes on consumption articles and thereby contribute more towards the public treasury of the State.

The question of improving the condition of

the peasantry by such methods should attract more attention than it has hitherto done. It is usually supposed that the development of industries is the only means of doing so. It is forgotten that whereas there are now about twenty crores directly depending upon land, there are only about six lakhs of people who are engaged in manufacturing industries. Therefore, there is no great chance of even moderately reducing the number of dependants on land even if a very rapid development of manufacturing industries can be brought about. By the proposed system of a new permanent settlement the standard of living and consequently the efficiency of the cultivator will immediately rise. He will be in a position to introduce gradually improvements which he is always prepared to undertake whenever such improvements are within his means. This has been recognised by the Indian Industrial Commission. Like adversity prosperity also has its cumulative effect. The prosperity of one generation leads to better food and training and wider outlook of the next generation, unless of course these are offset completely by a more rapid increase in population; this latter contingency is however inherent as a potent factor in the present downward grade. Such prosperity will react upon local municipal agencies. The District Board Unions, for example, which have now

little funds and which can raise little money by additional taxation, will be very much benefited and they can start their development work by taxing the general body of the rural population who for at least a time will be able to contribute towards their expenses. It is apparent that such development, undertaken by the District Boards will at once react upon and stimulate rural prosperity.

The middlemen landlords will, in course of time, find their present position untenable owing to their inelastic income from land as a result of the new permanent settlement. Perforce they will have to give up their present parasitic functions of living entirely or mainly upon the income from land when increase in their numbers resulting in the subdivision of their fixed income will be too small to maintain themselves even after reducing their standard of living as much as possible. Thus alone will an economically idle body be diverted to really productive employments.

In India, in the permanently settled areas, the problem will have to be faced in the near future, because land revenue is a provincial item whereas the most elastic sources of revenue like customs duties and income tax are Central items. Even if the Meston award be changed the inequitable distribution of the incidence of taxation will remain. Therefore, if the problem be not faced the particular

provinces where the permanent settlement obtains must be prepared to tax more and evermore the trade and industry of the country in order to give a free berth to those who prosper wholly at the cost of the community. This is a state of things which has not, in history, contributed to continuous peace and contentment.

CHAPTER III.

THE PROBLEM OF CATTLE IMPROVEMENT.

An important question which has for some time been exercising the minds of our public men is how to improve the cattle of India. It is felt that such improvement is urgent both in quantity and in quality. Usually the emphasis is given on quantity but, as will be seen below, the need is more for improvement in quality than in quantity. Only in a few places in India, for example, in Sind and some parts of Madras, is the quality of stud bulls at all satisfactory. At present, in some Government dairies, the problem is being attempted to be solved by importing stud bulls of superior quality and utilising such bulls of India where they are of the desirable type. Such experiments have been universally successful although they have hitherto been too limited for a vast country like India. The quality of milch cattle also requires to be improved in India. At present the yield of a full grown cow is rarely more than six sers per diem during the period of lactation. In this line also successful experiments have been made. At Bangalore and Mhow, for example, a full grown cow has been made to yield more

than sixteen sers per diem. Thus it seems to have been proved that it is not difficult to improve the quality of our cattle; both draught and milch, when proper efforts are directed in that behalf. The problem is, how to make such improvements widespread in India. The solution of this problem again depends upon the problem of how to make the results of such improvements available to the poor masses of the country.

In connection with this question of increase and improvement of our cattle, two measures are usually advocated. One is the stoppage of the slaughter of cattle, and the other is that of their export. The arguments advanced for stopping the slaughter are mainly of three kinds, viz., (1) religious and humanitarian, (2) medical, and (3) economic. (1) We shall not deal with the religious aspect of the question because we feel that we are not competent to judge whether or not it is a sinful act to eat meat and slaughter cattle for that purpose. But it should be remembered that the use of that diet is very restricted in India. The high caste people among the Hindus do not eat meat, and the lower caste Hindus and the Mussalmans, who have no objection, cannot afford to eat meat as frequently as the people of Western countries do. Yet the number in the aggregate is very large for the whole of India. Sometimes humanitarian

motives are advanced against the slaughter of animals, but these, however powerful in the breasts of some noble souls, cannot justify a compulsory measure depriving a large number of human beings from having what food they desire to have. This is a matter entirely for propaganda and educating public opinion. The movement of *gowshala* (cow preservation society) is in this direction. One can only hope that the same humane sentiments will be extended also to other animals besides the sacred cow.

(2) On medical grounds it is urged that, for people living in a tropical country like India, meat diet is not suitable. This however is a point on which medical authorities must agree before economists or other laymen can dogmatise. And when they agree there will be no need of proscribing the slaughter of cattle because people will themselves give up the harmful diet. Apparently such authorities are not of one opinion yet. Sometimes authorities are quoted, who condemn the excessive use of meat in Western countries. The opinion of such authorities must be cautiously applied in the case of India. What they usually condemn is not the use of meat as dietary but its excessive use. Excess of most things is bad even when they are vitally necessary for life. In any case it seems that medical authorities will take long to agree on such a question.

inasmuch as the food requirements of the human body have not yet passed beyond the stage of investigation. The elusive vitamins, for example, one class of which is derived from meat diet, must yield up their secrets before medical authorities can agree finally on this important question. Moreover, if we are to judge of results from experience India is the only important country in the world, an appreciable portion of whose population are averse to meat eating; this aversion originally arose out of religious scruples and is of late being justified by arguments based on medical grounds. Thus neither medical grounds nor experience will justify a person to stop slaughter of cattle for purposes of providing food. Further, if, on medical grounds, meat diet is to be prohibited in India, such persons who desire it should condemn and abolish first the consumption of other articles, the effect of which on the human body is much worse than meat, e.g., alcohol, opium, tobacco, etc. It is only during the last few years that, as a result of the new political movement, the consumption of a few such articles is being condemned on a wide scale.

(3) The third argument against the slaughter of cattle is economic. It is said that cattle should not be slaughtered because India has not had enough of cattle to spare. The rest of this chapter will deal with this economic

argument. But here it need only be pointed out that the aid of economics is usually invoked to cover religious scruples inasmuch as little objection is raised against the slaughter of buffaloes or goats, the milk of which is widely consumed in India. Moreover, buffaloes supply richer milk than that of cows, the quality of which is at least proportionately equal to that of cows when the cost of maintenance is taken into consideration. Further, as draught animals buffaloes are as frequently used as bullocks, and can do more arduous work than the latter.

As to the stoppage of export of cattle, the only argument advanced is the short-sighted one of present shortage in cattle for purposes of internal use in India. It is said that at present the number is not enough even for India. We should only export the surplus if there be any. As there is no surplus now we should not allow any export. It is evident that the amount of surplus is a matter which is vitally connected with effective demand for that article within the country. Ordinarily the need of a community or country cannot be ascertained by considering the quality of the commodity only but also its demand price. This is affected by the use of the commodity as also by the relative position of demand and supply prices. The fact that a substantial quantity of a commodity is exported is enough

in itself to show that the demand price at home plus the cost of transport, etc., is lower than the demand price abroad. This roughly proves that the use of such commodity within the country is not very great, or that the consumers are so poor that to them the value of money is very high. I believe that both these operate in the case of cattle in India, the latter perhaps with greater force than the former. At the same time it should be noted that the export of Indian cattle is small. From the point of view of supply we should take into account the cattle breeder in relation to the demand for cattle. Thus a study of the side of demand is essential to a proper understanding of the problem of cattle supply in India.

The demand for cattle resolves itself into several demands. (1) *The services of draught cattle and stud bulls.*—In India not only are draught cattle used universally for purposes of agriculture which directly engages more than seventy per cent. of the population, but they are widely used for purposes of conveyance throughout the country. The rural population consisting of about ninety per cent. of the population depend, to a very large extent, on draught cattle for conveyance within the country. By far the largest volume of internal trade moves by this primitive method of conveyance, and, except in a few localities, especially near the towns, the

same is the case with conveyance of human beings. (2) *Milk required by the country.*—The country depends wholly upon the milk supply of its own milch cattle. In some parts as in Bengal this is mainly from cows, but in greater parts of India cows and buffaloes are equally used for this purpose. They supply the whole country with milk and all its products such as butter, *ghee*, curd, *chhana*, etc. To a limited extent the milk of goats also is used especially for children. (3) *Hides.*—India holds a partial monopoly in supplying the world's skins, and its supply of hides is also very large. The demand for these is both internal and external. (4) *Meat consumed by India.*—The demand for this, as has been pointed out above, is limited to certain classes, and even among them, limited by their means. But in the aggregate this demand is very large. Among ordinary people the demand is usually for the meat of goats and sheep. But among the Mussalmans, who form about seven crores in number, and the Europeans including the British troops in India, there is a great demand for beef as well. Beef is also much cheaper than mutton. (5) *Dung.*—Dung is widely used as fuel, and, to a more limited extent, as manure. Its use in the latter capacity needs wide extension which however is a question wholly of cheap fuel for the rural population.

Now it is evident that the supply to meet the demands for (1), (2) and (5) above is joint supply. The cost of keeping cattle must be covered by the demand for their services, milk, and dung. As the price of dung is very low the price of the other two must necessarily be comparatively high. If there be any deterioration in quality this latter will rise higher in comparison with the cost of maintenance of cattle. The same result will accrue if the cost goes up without a corresponding increase in the price or improvement in the quality of cattle fetching better prices.

Secondly, the supply of (3) hides and (4) meat would normally be joint supply. But in India, owing to the restricted use of meat, a large amount of the supply of hides is independent of the supply of meat, and is obtained from the carcasses of dead animals. If the improvement of hides be desired better quality of hides must be obtained from healthy and youthful animals. The price of such high class hides is much higher in the market both in and out of India than hides of worse quality. The world's supply of hides is limited, and the demand for leather goods is increasing much faster than the increase in the sources of supply. Even in India where the use of leather goods is not wide, better market is opening up for hides. The profit out of this market is however limited by the

demand for meat inasmuch as the cost of maintaining cattle for this purpose must be realised from the services and dung of such cattle during their lifetime which will be short, the price of hides, and the price of meat. In India at present little use is made of meat to supply the external markets as is done, for example, in Australia. Any such opening of new markets for Indian meat is bound to make cattle breeding for purposes of supplying meat and hides highly profitable.

Thirdly, it must be realised that the supply of the services of draught cattle or milch cattle and their dung on the one hand and of meat and hides on the other is alternative supply so far as hides are not obtained from carcasses. Even in the latter case, although it is beyond human control, the source of supply of one is the negation of the source of supply of the other. In such cases the purpose of the cattle breeder will be regulated by the price of high class meat and hides on the one hand and the price of high class draught cattle or milch cattle and their dung on the other. This question is very important for the future of Indian cattle. Cattle breeding needs to be developed on a scientific basis, which must be so developed by special encouragement for the benefit of the rural population, and, with regard to the

milk and meat supply, for that of the town population as well.

Now it is apparent that the growth of an industry is best facilitated by securing the widest and the best market for its output. By limiting the market the price must fall and therefore discourage the industry. If the slaughter of sheep were prohibited in Australia or the export of cattle from Canada, the industry of stock raising will be destroyed in those countries. This explains the great discontent in Canada against the policy of the United Kingdom to restrict its import of cattle. Indeed, every country in the world attempts to develop new markets for its produce. In India however a large body of people seem to advocate the contrary method. By stopping either export or slaughter of cattle the alternative source of demand will almost be destroyed. Will this improve the market for cattle breeders? If not, will this develop the industry of stock raising? It is often argued that the free export and slaughter have not improved the quantity or quality of Indian cattle. Assuming that it is so, will such restriction do so or will it lead to greater deterioration of our stock? No article which is not perennial and needs reproduction can improve with a more restricted market, and the position of cattle in this respect is exactly

that of any other article which has to be reproduced for satisfying human wants. The consumer is rarely benefited by hitting the producer. The latter is immediately affected, but, in the long run, the former is no less affected through the adjustment of supply to the new condition of the market.

In the case of cattle breeding there are certain special considerations which add to the force of the foregoing arguments. To improve the quality of cattle in India it is necessary to select stud bulls and even cows of a superior quality. This means importation from outside and selection within the country. Also to increase the number it is necessary to work on a large scale. Now costly experiments with imported or specially selected bulls and cows require large capital so that the cost of failure of an experiment or the death of a costly bull may not mean the death of the industry itself. Thus production on a large scale, apart from its inherent advantages, is a necessity for stock raising in India. Of course, there is a limit to the growth in the size of this industry as there is in the case of most industries. In cattle breeding the need of special attention to individual units, of cleanliness, and various other factors fixes a limit beyond which an ordinary farm cannot grow. But the limit yet leaves a very wide scope for such industries to develop in India

since their present size and organisation are almost insignificant. The nearer is the size of a farm to this limit, the greater will be the economy and efficiency of its working and the less will be its chances of failure through inability to work with costly bulls and cows or other costly implements. Also there is less certainty in cattle breeding than in most other industries inasmuch as it deals with a living factor over which man has but limited control. Allowance must therefore be made not only for unequal output fetching different prices for the same cost, but also for death by, say, epidemic or other causes. Thus the risk is greater than in ordinary industries. All these make the industry a special one which can succeed only with comparatively high profit per unit of output. Therefore, the price must be higher in proportion to the cost of production than in ordinary industries. Further, however much man may try, standardisation cannot be carried to the same length in this industry as in others. Thus the cattle breeder must work on a large scale, must have comparatively high price per normal unit, and must cover his risk of loss through greater uncertainty.

At the same time competitive production requires to be assured in the interests of the consumers and, ultimately, in the interests of the industry itself. Thus only can there be

a rapid increase in the number and quality of the cattle bred in the farms, and thus only can the price of cattle be kept down as low as possible. In the beginning the Indian market is not likely to offer as good chances as it would later on. The reason is the poverty of the people who would not venture easily to work with better cattle before their increased value is fully brought home to them. This is a matter of time. Thus cattle breeding in India cannot develop without a good market from the beginning, and the Indian market in the beginning cannot be so very good owing to its shyness towards innovations and its poverty. Even if the export be not substantial the fact of its being open and of the possibility of its development is sufficient to exercise a healthy influence on the industry itself. Therefore, any limitation of the market has its dangers whether it is by preventing the slaughter of cattle and thereby choking the demand along a particular line or whether it is by prohibiting the export and thereby cutting off the external market. The fullest advantage both of the producers and of the consumers can be obtained only by keeping the market open and allowing free play to the forces of competition in the alternative forms of demand, viz., draught and milch cattle and their dung against meat and hides.

Coming now to look into the facts with

regard to cattle in India we find that the number of cattle is not so deplorable as it is usually assumed to be, although the situation is far from satisfactory. From Table I. which gives the figures for British India and the United Kingdom it will be seen that the number of agricultural draught animals and cattle including young stock is 31 per 100 persons in the United Kingdom and 60 in British India. This is usually the comparison which is shewn in some publications aiming at proving India's favourable position. But apparently this is very misleading when we remember that such animals, especially the draught animals, are almost wholly used for agricultural purposes in the United Kingdom, but in India they are widely used for purposes of transport, and that the proportion of the agricultural to total population is 72 per cent. in India and 6 in the United Kingdom. Thus the proportion of agricultural animals and cattle to the total agricultural population is 80 per cent. in India and 518 in the United Kingdom, or six and a half times that of India. Similarly, if we take draught animals the corresponding figures are 30 for India and 71 for the United Kingdom. Here the position of India is much worse than is revealed by the figures, for the use of draught animals for ordinary conveyance is much more extensive in India than in the United Kingdom. In

TABLE I.

1919	Population (millions.)		Agricultural animals and cattle (millions.)				Agricultural animals and cattle per cent. of		Agricultural draught animals per cent. of agricultural population.	Milch cattle per cent. of total population.	Total cultivated area in millions of acres.	Number of draught animals per 100 acres of cultivated area.
	Total.	Agricultural	Draught animals.	Milch cattle.	Total.†	Total population.	Agricultural population.					
British India	247	178	55	51	149	60	80	30	21	222.8	.25	
United Kingdom	47	2.8	2*	8†	14.5	31	518	71	16	20.7	.9	

* Horses used in agriculture. † Including young stock. ‡ Calculated.

India this is practically the only means of conveyance in rural areas. In the United Kingdom this is so to a much less extent, other means of transportation having been so well developed. On the other hand it must be said that the use of cattle for meat is proportionately much greater in the United Kingdom than in India. However, this affects little the position of draught animals in the United Kingdom, which are horses and little used as meat. As against the use of cattle for meat in the United Kingdom it should be remembered that the United Kingdom does not depend for its meat supply on home cattle only. There is a large import of meat, especially from Australia. The total import is about £ 175 millions or £4 per head of the total population per annum. The Indian import is almost insignificant and is consumed mainly by the resident European population. The Indian import of canned and bottled provisions—which include other provisions than meat—is only £ 40,000.

Again, the percentage of milch cattle to the total population is 21 in British India and 16 in the United Kingdom. The position of India seems to be better. But it is to be noted that the yield of milk per cow in India is less than one-third of that in the United Kingdom. Also the period of lactation is less in India just as the dry period is longer. As against this

the cost of maintenance is also less in India. Besides, there is a large import of milk and its products or substitutes into the United Kingdom from Canada, Denmark, Switzerland, Norway, and Holland. The total import of butter, cheese, lard, margarine, and condensed milk is £68 millions per annum or about £1½ per head of the total population per annum. The Indian import is only £ 19,000, consumed mostly by a few rich persons.

The percentage proportion of the number of draught animals used in agriculture to the total cultivated area in acres is 25 in British India and 9 in the United Kingdom. The position of India in this respect is much better than in any of the above comparisons, although it is not so good as the figures would seem to indicate. Because, in the United Kingdom, horses are used in agriculture, which are better suited for, and can do quicker and better work than bullocks in, agriculture. Also up-to-date implements and machinery are used in the United Kingdom, while India works with an age-old primitive system. Yet it should be said that the position of India in respect of its number of draught animals available for agriculture is better than what is usually represented, even when we make proper allowance for the wider use of them in ordinary conveyance than in the United Kingdom. In this connection

Table II. showing the number of persons, cattle, and sheep per one hundred acres of total area will be of interest; this compares British India with some of the European countries only. In the number of cattle India's position

TABLE II.

PER ONE HUNDRED ACRES OF TOTAL AREA.

Countries.	Persons.	Cattle.	Sheep.
British India ...	33	20 .	7·5†
Austria* ...	39	12·4	3·3
Belgium ...	104	25	...
Denmark ...	28·5	26	5·4
England ..	105	16·3	42·7
France ...	30	9·6	9·5
Germany* ...	49	16·3	4
Holland ...	75	26	10·5
Hungary* ...	26	7·7	8
Ireland ...	21·6	24	17·7
Italy ...	49	·9	16
Scotland ...	25	6·4	37
Switzerland ...	38	14·6	1·6
Wales ...	43	16·5	78

is fifth, while in density of population it is very much lower. This makes the position of India comparatively better as also the fact that only one-third of the total area of India is under actual cultivation; the proportion is very much higher in most of the countries mentioned in the above table. As against

* Pre-war figures.

† Including goats.

these we should set the fact that the proportion of population dependent on agriculture differs considerably, being about three-fourths of the total in the case of India.

• If we take the case of India alone and look to its position during the last twenty years or so we find that the picture is certainly not so dark as it is sometimes depicted. Usually it is said that the export of cattle should be stopped in order to retain sufficient cattle for home use. But the cry is born of ignorance of facts. The normal export of cattle from India is less than 2 per 10,000 heads of cattle, that is, 0.02 per cent. It may be said that, although the number is small, yet some of the best cattle are thus exported. If it be so it should be considered whether such cattle would be raised at all if their export were stopped. The chance of their use within the country will not be increased by stopping their export, thereby stopping their raising, but by popularising them by experimental use in India and proving that their extended use will be economic in the long run. The case of sheep and goats is similar although their export is more extensive than that of cattle. The normal export is 34 per 10,000 heads, that is, 0.34 per cent. Certainly the amount is not such as to create alarm even if the stoppage of export were an effective remedy. In this connection it will be interesting to compare the export of cattle.

from India with that from Ireland whose position in this respect is very much allied to that of India. Table III. shows pre-war figures which have been taken to avoid the

TABLE III.

1914	Total cattle in thousands.	Number exported in thousands.	Percentage of export to total.
British India	143,200	32	0.02
Ireland	5,000	945	19.0

N.B.—The post-war cattle export of India has considerably diminished

effects of Irish political complications of recent years. In 1914 India exported 0.02 per cent. of its total cattle whereas Ireland exported 19 per cent.

Nor has the increase in the number of cattle in India been very unsatisfactory. I do not mean to say that the total number is adequate but the increase is assuring. This can be seen from Table IV. which gives the figures for 1900, 1910, and 1920. The increase in the total population from 1900 to 1910 and from 1910 to 1920 has been 5 and 1 per cent. respectively. The corresponding figures of increase in agricultural population are 12 and 5. At the same

TABLE IV.

In millions.	1900	1910	1920	Percentage increase of 1910 on 1900 1920 on 1910	
Total population	232	244	247	5	1
Agricultural population	151	169	178	12	5
Total livestock	137	174	209	27	20
Bovine including buffaloes	87	119	149	37	25
Ovine (goats & sheep)	47	52	56	11	7

time the increase in total livestock has been 27 and 20 per cent., in cattle 37 and 25 per cent., and in goats and sheep 11 and 7 per cent. Therefore, the increase in cattle is much greater than the increase in the agricultural population and very much more than that in the total population. As the number of cattle or draught animals per head of the population is less than one and as the proportion of draught animals to total cattle remains practically the same, a more rapid increase in cattle than in the agricultural population means a proportionately greater increase in the number of cattle per head of agricultural population. Thus India is gaining and not, as it is often stated, losing ground in respect of its supply of cattle or draught animals. Not that the conditions as they exist are satisfactory but that the movement is in the right direction, as it is not in so many other directions, and requires to be accelerated. Any attempt to lower prices by reducing the market by prohibiting either export or slaughter is almost sure to retard this progress. Means should be devised to encourage further the industry of stock raising in India.

At the same time provision should be made for keeping up the improved quality of cattle when these have spread widely in India as also for improving the existing stock within the country. For this purpose pasture lands

should be provided and proper care taken to develop such lands. The present tendency is unfortunately against this. Common pasture lands in and near villages are being steadily and rapidly converted into cultivated lands. This short-sighted policy, pursued practically throughout India, has its inevitable reaction on the quality of cattle as also ultimately on their number. It will be seen from Table V. that, in ten years, the increase in the net cropped area is less than 5 per cent. But the

TABLE V.

COMPLETE FIGURES ARE AVAILABLE ONLY SINCE 1907-08.

			In thousands of acres.		
			1908-09	1913-14	1917-18 *
Area under forest	...	...	82,489	82,623	86,925
Area not available for cultivation	...	...	157,639	147,169	142,783
Cultivable waste other than fallow	...	...	113,066	115,587	111,485
Fallow land	...	...	50,153	52,620	48,466
Net area cropped	...	...	218,040	219,192	227,848

area not available for cultivation and cultivable waste other than fallow has decreased. The latter is rather uncertain in its fluctuations, and its decrease is also small. The former has decreased by about 10 per cent. (about 15 million acres). This area should normally increase with the growth of population and the need for habitable accommodation. The increase in the net cropped

* 1917-18 is taken because 1918-19 was a famine year, and 1919-20 and 1920-21 were also abnormal.

area (about 10 millions) is not explained by the decrease in fallow land (1.7 millions) and in culturable waste other than fallow (1.5 millions). At the same time the area under forest has increased (4.5 millions). During the same period the total area by professional survey decreased by about 3 million acres. Thus some of the area not available for cultivation has been converted into cultivated area and forest. The portion of the former which can be conveniently transferred in that way is pasture lands which are more fertile than other parts of it, and therefore can be converted either for cultivation or forestry. This confirms the impression of those who have travelled widely in villages and seen the complete disappearance in some and great reduction in most localities, of the common pasture lands for the cattle of rural India.

As against this it should be noted that there has been a substantial increase in the quantity of fodder crops. Lands growing fodder crops were 4.9 million acres in 1907-08, 5.9 millions in 1913-14, and 8.2 millions in 1917-18. Thus the area has increased by 67 per cent. during the ten years for which complete figures are available. Of course, fodder is obtained from various other sources, for example, gardens, orchards, fallow land, by-products of substantive crops, etc. Yet the need for pasture lands is not less for the

healthy growth of cattle, and measures should be systematically taken to provide for such lands where they do not exist and to increase them where they are insufficient, because the health of the cattle will improve by open air grazing and by fresh food on the pasture lands as also by the regular exercise which they will receive in grazing on such lands.

To conclude then, it appears that India should give attention to the improvement of the quality of its cattle first and to the increase of their number next. To achieve both it is vital that not only the market at home and abroad for services, meat, and hides should be kept open, but that it should be extended by all means in every direction in order to encourage rapid development of the industry of stock raising. By this means alone can the quantity of cattle be increased, their quality improved, and their prices kept low. In order to keep up the quality when improved cattle will be used in India as also to support a larger number, pasture lands should be provided in all convenient localities, and fodder crops raised only as a competitive crop. If the value of India's cattle increase, higher prices will be paid for fodder, and it will be raised in competition with other crops. The value of cattle can be increased not only by improving the quality but also by finding new use for them. In this respect the use of dung

as an excellent manure, needs to be made widely known; but this is more or less a question of providing cheap fuel to India's rural population. Finally, the situation, especially as to the number of cattle and their increase, is not desperate as some people imagine. Progress is going on in the right direction. What is necessary is to accelerate the pace of this progress, and organise the industry of stock raising on purely business principles. In this attempt the Government of the country will have to play an important, perhaps a leading part, although not in the direction which the advocates of prohibiting slaughter and export recommend.

CHAPTER IV

EXPORT OF FOODSTUFFS.

Public opinion in India now, so far as it is articulate, mostly supports the measure of controlling or stopping the export of foodstuffs from India. Indeed this clamour led to the stoppage in 1919. Every body will sympathise with the sentiment behind the demand, viz., that India shou'd be free from the continued menace of high prices of foodstuffs before these are sent out of the country. But the solution is being attempted by a short cut which is neither practical nor calculated to bring about the desired consummation. It has been urged that at present India produces just enough for its own consumption and little can be spared for export, that if the export be stopped there will be enough foodstuffs available for the whole population, and that the price will materially fall. .

At the outset a fallacy is patent, viz., that the quantity of foodstuffs would remain the same even when the prices are made to fall by Government regulation of the export. Every body knows that the cultivators, like all other producers, invest their money and labour on the land up to the margin of profitableness and that every fall in the price is bound to raise

that margin and reduce the output to that extent. The greater the proportion of the output at the margin to the total output, the greater must be the reduction by a fall in the price and the greater the probability of prices soaring higher than the previous level. And in all old countries—India is certainly one—the marginal output is very great.

But this argument would not hold with those who assert that now profiteering is going on and the margin is much above what is justified by the prevailing cost. This, if true, can only be temporary and therefore should not be made the basis of a permanent policy of restricting the export. Even if it be wanted as a temporary measure there are grave dangers. It cannot be too constantly kept in view, that land in India, as everywhere else in the world, does not produce food crops only, but other crops which have a high money value. The demand for these is rising in the world market, and will do so for a long time in spite of temporary set backs as, for example, happened in the case of cotton during the last financial crisis in Japan and as probably will happen as a result of the recent earthquake. Any restriction on the export of foodstuffs will, by lowering their prices, drive the cultivator to grow money crops in larger quantities.

We shall take the case of Bengal to illustrate this point. Already Southern and

Eastern Bengal grow predominantly money crops, and Northern and Western Bengal, particularly Northern, are following suit. The process would have been much faster and more manifest if the cultivator, like his compeer of Canada or the United States of America, were intelligent and educated enough to respond quickly to a world movement in prices. This ignorance helps us to get our foodstuffs at the present rate; otherwise it would have been higher still.

In the early nineties of the last century it used to be thought that the maximum area of jute cultivation had been reached, and that there was no further chance of jute supplanting rice. The price of jute went on rising till the war, and we had a large increase in jute lands. The fact is that even a land which is especially suitable for the growth of a particular crop can be diverted to growing other crops if there be a sufficient difference in the prices of the two rival commodities, always of course compared with the cost of producing and marketing them. The post-war figures of jute lands show a fall owing to the disorganisation of the foreign market and the sudden stoppage of war demand. Before that in 1914-15 we had an increase of 160 per cent. in area and about 175 per cent. in output over the corresponding figures of 1886-87, which at one time had been considered to be the

maximum possible area and output of jute. It will be observed that the increase is both in extensive and in intensive cultivation.

Similarly cotton is competing with wheat in the Central Provinces, Bombay, and Malwa. In Sind and the Punjab the irrigated areas have successfully grown long staple cotton of the Egyptian variety, although it has not yet become a marketable commodity on any practical scale. But the danger of cotton supplanting wheat cultivation is inherent. During the period of the stoppage of food exports from India, that is, from 1919 to 1922, an accident alone saved us from the disastrous consequences of the policy. India's export of cotton, raw and manufactured, is about 20 per cent. of its total export. Japan buys about 75 per cent. of our cotton exported. During 1919-1921 there was a severe financial crisis in Japan, which considerably depressed our cotton price. In 1919 the price of a bale of Broach cotton at Bombay rose to about Rs. 850. In 1920-21 it fell to Rs. 150. In 1922-23 it was again above Rs. 500. The recovery of cotton price means danger to wheat just as the recovery of jute price would mean danger to rice in Bengal, if the prices of rice and wheat be artificially kept down by stopping the export. No more opportune moment could have been chosen to take off the embargo on the export of foodstuffs when

cotton prices were recovering, and Government did the barest justice to the cultivators and to the country at large when they declared in October 1922 that the embargo had been removed.

It is usually believed that the increase in prices does not at all reach the cultivator. This is inaccurate. Statistics of prices and cultivated areas of different articles present a different tale, and show substantial competition between rival commodities as also the expected response of cultivated area to fluctuations in the price of an article. Why should the cultivator vary his area under a particular crop if he did not receive a share at least of the increase in the price? The accompanying figures will help to make the point clear. The average of five years is taken in order to allow time for the adjustment of cultivated areas in response to price variations. It should however be noted that in famine years the area sown, instead of being the result of the prices prevailing in the preceding years, is the result of rainfall and the cause of high prices. Therefore, when an average includes a famine year that is shown by an asterisk (*). The figures should in that year be assessed subject to this reversal of the relation of cause and effect between the price and area cultivated. With these precautions we proceed to examine the figures. In comparing the figures of rice

Average of	RICE		WHEAT		JUTE		COTTON		CEREALS		Percentage of food crops to total cropped area.			
	Area.	Price.	Area.	Price.	Area.	Price.	Area.	Price.	Area.	Price.				
		Rangoon.		Calcutta.		Area.		Price.		Area.		Price.	Area.	Price.
1899-1904*	70.6	130	164	96	2.2	184	10.3	78.4	179	149.6	90.4			
1904-1909*	74	156	223.6	98	3.2	268	13.3	95	189.5	171	89.2			
1909-1914	78	178	210	111	3	273.4	14.4	116	199	182.4	90.2			
1914-1919*	79	149.6	224	139.5	2.7	317.6	14	149	200.4	222.6	90.5			
1918-1919	77.6	...	...	...	2.5	...	14.4	...	177.8	...	88
1919-1920	78.7	...	...	...	2.8	...	15.3	...	199.7	...	89.6

* Means that the quinquennium includes a famine year.

N. B.—Area is given in millions of acres. Prices in index numbers with 1873 as the basic or standard year.

and jute it will be seen that 46 per cent. rise in the price of jute during the 'quinquennium 1904-1909 has led to a corresponding increase in the area cultivated. At the same time the area under rice increased by less than 5 per cent. although the rise in its price was 36 and 20 per cent. at Calcutta and Rangoon respectively. But the Calcutta price rose owing to the widespread failure of the rice crop in Bengal in 1908, especially in the district of Backerganj. Thus we find the Calcutta price at 292 in 1907-1908, 281 in 1908-1909, and 266 in 1909-1910, while the corresponding figures for the area under rice were 76, 72.8, and 78.7. The previous quinquennium also includes a famine year, viz., 1900-1901, but that did not materially affect rice since it was mainly a Northern India famine. In the next quinquennium the price and area of jute remained practically the same, the slight fall in area is explained by the recovery of rice from the effects of the famine of 1908-1909. The price of rice fell at Calcutta by 5.5 per cent., but rose at Rangoon by 14 per cent., so that the increase in area by about 5 per cent. is quite normal. During 1914-1919 the average price of jute is misleading inasmuch as it is heavily weighted by the price of 1914-1915, viz., 448, as a result of the war conditions of that year. The average of 1915-1919 is only 285, while the area would be 2.6 for the same four years. Thus there

was a rise in price by 6 per cent., but a fall in area by 13 per cent. The price of rice at Rangoon fell at the same time by 15.5 per cent., and we should expect a fall in the area under rice in Burma. But the price at Calcutta rose by 16 per cent. We should therefore expect a substantial rise in the area under rice in Bengal, which is at the cost of jute, since the rise in the price of jute is much less than that of rice in Bengal. The total area under rice shows an increase by 1 per cent., thus proving that a substantial rise in Bengal has made up the deficit in Burma.

Turning now to the figures of another group of competitive crops, viz., wheat and cotton, we find the same situation. During 1899-1904 the price of wheat ruled high in consequence of the failure of harvest in 1899-1901, that of 1908-1909 affecting wheat much less. Hence the difference in the prices during the first two quinquenniums in our figures is more substantial than that between 96 and 98, and we find a substantial increase in the area cultivated. In cotton during the same period an increase in its price by 27 per cent. has led to an increase in the area by 33 per cent. In the third quinquennium also the relations are well maintained. The price and area of wheat have increased respectively by 13 and less than 8 per cent., and those of cotton by 22 and more than 8 per cent. The

slight discrepancy explains itself by the second quinquennium including a famine year in which wheat partially suffered, and therefore its price ruled a little higher than usual, thus making the difference in the prices between the second and the third quinquenniums less than what would have been in normal circumstances. In the last quinquennium the prices of both wheat and cotton are vitiated by the widespread failure of harvest in 1918-1919. If we leave out that year the average price and area of the previous four years are for wheat 116 and 25.2, and for cotton 119 and 14. These, when compared with the figures for the third quinquennium, clearly show that the greater increase in the price of wheat worked to the disadvantage of cotton in spite of the price of the latter going up but to a less extent than that of wheat.

Taking the figures for cereals as a whole we are further confirmed in our conclusions. The increase in the price shows an increase in the area. In the last quinquennium the response of area to fluctuations of the price is significant because the increase in the price of the competitive crops, especially jute, is greater. This is accurately reflected in the percentage of the area of food crops to the total cropped area, if we make the necessary allowance for the exceptional year, 1918-1919.

In the case of each of the tables above the

area for 1918-1919 and 1919-1920 is given in order to show the effect of the price on area over several years in succession because it takes one or two sessions for the area to respond to the movement of the price.

Again, according to the Administrative Reports, especially of Bombay and the Central Provinces, the failure of harvest in 1918-1919 was as widespread as that of 1899-1900, yet the amount of distress was much less, and our rural population was much better off. Does this not show that they grew richer by the high prices of their products during the years just preceding the failure of harvest, when prices generally had been very high? Moreover, the price just after the harvest may be taken as an indication of the price which the cultivator gets, whereas the highest price in the year may be taken as the price which all the middlemen through whom a commodity passes can get. Comparing these figures from 1904 onwards it will be seen that about 75 per cent. of the increase in the prices goes to the cultivator. As there is substantial competition—although not to the extent desirable—among the middlemen themselves, we should have expected what is proved by the statistics of prices. Therefore, it is incorrect to assume that the cultivators are cheated very greatly in that direction. Of course, there are some other ways in which they lose a portion of

their, legitimate gains. For example, they lose by the advance contract system on a loan basis, although the above figures show that their loss is not so great as is popularly supposed. By lowering the prices by stopping exports, the middleman, if he really dictates his terms to the cultivator as is alleged, will be enabled further to depress the price which will go to the latter. The true remedy for the evils of the advance contract-cum-loan system is the organisation of co-operative sales' associations. Cheating proper can be abolished only by a system of popular education of a sufficiently high standard to enable the cultivator to keep and properly understand accounts and weighing.

Under the ban on exports the cultivators would grow enough food crops for their own consumption and the rest would be money crops. If any body grows money crops only that merely shows that his profits from money crops are so great that he finds it profitable to buy his food at the enhanced price. This would bring prosperity to them but no relief to the middle and non-cultivating classes. The policy of free export creates exactly the same situation. Why then interfere and artificially divert land to money crops? Ultimately when the mistake would be found out, attention would be drawn to the futility of restriction on exports as a palliative for the

high prices of foodstuffs. Then the policy would have to be reversed, and another period of dislocation would ensue, since those lands which had been better fitted to grow food crops but diverted to money crops by the artificially low price of the former would have to return to food crops.

It is apparent that the measure would, for a time, benefit the non-cultivating consumers at the cost of the cultivators. Thus producers would suffer for the consumers. In such circumstances a man who produces more than he consumes is hit harder than a man who produces less than he consumes. In the economic interests of the country as a whole, there is no doubt that such a state of affairs is suicidal.

Then, again, those of the non-cultivating classes who really deserve our sympathy are very small in number. They are those who have fixed income of a very moderate amount. We think that they are only a fraction of one per cent. of the whole population. In reply the condition of the poorer classes would be pointed out. But in most places, especially in factories and other big places where labour is employed on a large scale, the wages have increased more than the prices of the articles which the labouring classes consume. Of course, they deserve much more, but should it be at the cost of the rural producers?

Pushed to its logical extreme,—and stoppage of the export is pushing it to the extreme—it means that we want to convert our cultivators into factory labourers. In any case we degrade the cultivators. At the same time the prices which they have got to pay for their necessities, for example, clothing materials, kerosine, matches, sugar, etc., would increase uninterruptedly and, in fact, are sought to be increased in the name of industrial development by imposing high protective tariffs.

In passing it may be mentioned that the question of high food prices is essentially a question of the pressure of population on the soil, and as such must be tackled along with the question of the growth of population and the elasticity or otherwise of the standard of living. The report following on the High Prices Inquiry has confirmed Lord Curzon's statement of twenty years ago that during the last thirty years or more the growth of population in India has been continuously pressing upon the limit of subsistence. Indeed the report says that population has already outgrown the limit although the Government resolution on it says that population and means of subsistence are just running parallel. In any case the situation is serious, but we do not hear of any discussion in which the writers or speakers show that they are even remotely conscious of the population factor. Nor has

there been much discussion about agricultural improvements by means of which, according to experts, the output in India can be doubled or trebled in the course of a decade. Neither do we hear of co-operative sales' organisations to reduce the excessive handling by the middlemen. We hear only of the thoughtless and drastic remedy of controlling or stopping the export of foodstuffs, or, what is worse still, the control or stoppage of the export of all agricultural products.

By such control the price must immediately fall. In fact, the object of control is that. By a fall in the price is the producer encouraged or discouraged? Will the producer be encouraged by keeping open the market and thereby assuring the best price or limiting it and thereby reducing the price? When rival products are rising in price, will not this artificial restriction of the price of one article considerably reduce its output? The only means to avoid the inevitable result is to control all rival products, that is, to degrade to the same level all the agricultural producers of the country. That is the logical consequence if we want to be thorough in our policy of controlling or stopping the export of any one agricultural product.

By the volume of irresponsible talk about the restriction on export an uninformed opinion is being created, which will bring its

own disillusionment to those whose immediate interest it is to have lower prices and to those who will be disturbed too much in their peaceful occupation of agriculture.

People in towns are apt to think that the foregoing chain of arguments is too technical and complex for an ordinary cultivator. Our experience in various parts of India is otherwise. The cultivator is often a very shrewd judge of his own interest. He may be helpless in many matters but he knows his immediate affairs very well. Whenever an opportunity is offered the present writer makes it a point to talk to the cultivators on this subject of the restriction on exports. It has been invariably found that when the issue is clearly put that the export of a particular crop is to be prohibited or restricted, its producers always oppose that measure. There have been many cases in which the producer of jute or cotton would oppose restriction of its export, and, in blind narrowness, support that of rice or wheat, while the producer of the latter would take the contrary view. This shows that all are aware of the fact of their loss if their products are restricted in exportation.

Here it is worthy of note that the proportion of foodstuffs exported from India to the total of India's output is very low, and need not cause any alarm even if the control on their exports were a remedy for high prices.

The average output of foodstuffs in India is about eighty million tons, whereas the average export is about one and half millions. This works out at about 2 per cent. But what operates on the trade is the fact of the export being free or controlled. Free export tends to stimulate the producers and helps to keep the trade in touch with the world movement of prices, whereas control of the export tends to operate in the contrary direction. Consequently the morale of the trade stiffens by open export and considerably suffers by its control or stoppage.

Finally, the case for control is purely a case of the middle classes, who do not produce any thing in the ordinary sense, and a very shortsighted one even at that, although the outcry for restricting exports is usually raised as a measure of national interest. In the ultimate analysis there is no such conflict between the interests of the middle classes or indeed of any class of consumers and those of the agricultural producers. By the stoppage of export the producers are directly injured but the consumers suffer in the long run by the inevitable adjustment of production to the new prices artificially maintained by the measure. The problem should therefore be tackled from an entirely different point of view. The only permanent remedy lies in strengthening the hands of the consumers by making them effi-

cient producers, so that they may buy in competition in the open market. For this the avenues of productive enterprises require to be explored as assiduously as the standard of efficient living requires to be made rigid in order to check the growth of a surplus population at the cost of the same standard and therefore at the cost of the productive capacity of the country as a whole.

PART II.
PROTECTION.

CHAPTER V.

RELATION OF AGRICULTURE TO INDUSTRIAL DEVELOPMENT.

Of late special attention has been directed to the needs of India in developing its manufacturing industries. Various methods are being mooted in that behalf. But there is no difference of opinion that industrial development is a desideratum.

In this connection an important point is often ignored. Discussions are carried on, which seem to show that the prevailing idea is to develop manufacturing industries without any thought of agricultural improvements. But the two are so vitally connected with each other that, except to a limited extent, there can be no development of manufactures without a simultaneous and corresponding improvement in agricultural operations. Nor, conversely, can there be any agricultural improvement on a wide scale without a corresponding development of manufacturing industries. This connection between the two needs to be emphasised so that the dream of rapid industrial development in India, which is probably not unrealisable, may not remain unfulfilled by missing its necessary relation to agriculture.

Agricultural development means greater output on the same lands with the help of improved implements and machinery and methods. This means that men and cattle power will be largely superseded or supplemented by labour-saving devices. This as also a redistribution of agricultural income will very much increase the income of the cultivators. This state of affairs in itself may prove a curse instead of a blessing to both agriculture and manufacture of India. To agriculture it will be so because the same number would not be required on land inasmuch as one man now would be able to do the work of several men working on the old method. But at the same time the output would increase. This would make up for the distress through the supersession of old hands by better methods now adopted. Thus the actual condition of the peasantry, if all of them remain on land, would be determined by the increase in the output and this supersession. If, as is likely, the former prevails, then the same number can live on land and yet have a little more than before of the agricultural output. But this means that these people would represent unproductive labour inasmuch as a much less number can be effectively engaged on land as a result of the introduction of improvements in agriculture. Ultimately this labour must find a

profitable output for employment unless it is to remain as a permanent drag on the main industry of the country. To draw it away to other employments will also be difficult inasmuch as the improvements will bring greater *per capita* income from land. This very prosperity of our agriculture is likely to ruin it since, other things remaining the same, not only no labour will go out of land, but by its prosperity more labour may be attracted to it, thus neutralising the prosperity. So improvement in agriculture may lead to greater ruralisation of Indian labour. Therefore, efforts should be made not to allow other things to remain the same. The problem is to find profitable employment for the surplus rural labour not by depressing the agricultural industry but by improving the prospects in other industries. Thus there is always effective competition between different productive employments, and, subject to the difference in the conditions of work as affected not only by the ordinary economic motives but also by the social and religious customs and prejudices, there is the tendency to have the same income in all the industries of the country for the same grade of labour.

If, on the other hand, we want to develop only our manufacturing industries, the difficulty is about getting a regular and sufficient supply of labour and cheap raw materials.

At present most of our factory labourers are partly dependent on land, and, in the reaping and sowing seasons, the factory hands always diminish in number. Also the want of foresight and the dislike for a factory life make the labourers stay at home whenever there is a good harvest, that is, whenever they are not compelled to seek work and earn a living. This condition has a twofold evil effect. First, the labourers can never fully master the technique of their work in the factory and cannot maintain it when learnt because of this constant fluctuation and irregular attendance at their work. Secondly, those who go out for work in bad seasons only are naturally willing to work at a reduced wage because their want is more pressing and therefore their power to bargain for wages is less. They are the marginal labourers in the market, and thus determine the rate of wages for their grade. Therefore, the effect of this influx is to depress the level of wages for all the factory hands. The unskilled labourers suffer at once and suffer greatly, limited only by the number and urgency for work of those who seek employment from the villages. The skilled workers, especially of the lower grades, also suffer because of the substantial competition among two contiguous grades in the same trade. This tendency increases with time and progress as the barriers between different

grades are being obliterated or at least minimised by the use of standardised machinery, the operation of which is easy to learn (and as easy to forget through want of continuous work). This substantial competition between the regular factory workers and what we may call the "intermittent" workers stands in the way of India's industrial development because the supply of labour and therefore production are uncertain and because the technique cannot be so well learnt, as also in the way of the prospects of the labourers in the matter of their efficiency both as producers and as bargainers for wages.

Thus the problem of industrial development involves the problem of continuous labour supply, and the problem of agricultural development involves the problem of unemployment. The latter also affects the problem of cheap supply of raw materials for use in the factories. Thus agriculture and manufacture supplement each other, and efforts directed towards industrial development will be largely frustrated if unaccompanied by efforts directed towards agricultural improvement.

Moreover, with a prosperous agricultural community in India the market for home manufactures will considerably improve, and this in itself is no small incentive to further development of manufacturing industries.

The dream of India's securing big foreign markets and producing mainly for them like England may, for the time, be put off as a mere dream. Apart from the present inefficient production in Indian industries, there is an additional barrier to such expansion of foreign markets for the products of our industries. High tariff walls have been raised in most countries of the West which are also efficient producers. The market for Indian manufactures will therefore be limited to the territories near India which are not well developed, that is, the territories between the Suez Canal and the boundaries of China by sea, and Afghanistan, Turkestan, Tibet, and China by land. These markets, especially those which can be reached by sea, are also open to other more powerful manufacturing countries. Sea transport is much cheaper and, for all transports, the cost of transportation per unit falls heavily with the increase in the distance over which articles are carried.* Therefore, the neighbourhood of India to these territories does not necessarily mean that the cost of transporting our goods to these markets will be substantially lower than the cost of transport from Europe. All these considerations should lead us to look upon the

* Lardner's Law of Squares in Transport and Trade. Vide Lardner's Railway Economy.

home market as the main support for our manufactures. Therefore, the rural classes, who depend upon land and who form the major portion of our consumers (and will, be so for a long time yet in spite of rapid industrial development in India) will be the main buyers of the products of our industries. Hence in the prosperity of our agriculture lies also the prosperity of our manufactures, and in its adversity their adversity as well.

From another point of view also this is true. If, as is advocated by many in India, the protective tariff be adopted as a means of developing our industries, it will impose a heavy burden upon the consumers. This burden can be lightened exactly in proportion to the development of agriculture which will not only increase the output of land but put more lands in the hands of one man than he can have now, by economising human power with the help of better implements, machinery, and methods, and thereby releasing labour to be absorbed by the developing industries. Thus will be established a mutually beneficial circle of economic development. Development of agriculture will make the general body of the rural classes better consumers of the products of manufacturing industries and sellers of cheaper agricultural raw materials, which, in their turn, will help the manufacturing industries by supplying them with a

better market, cheaper materials, and sufficient labour to work them.

Further, the development of agriculture will in itself contribute towards the development of at least some industries on a very large scale. The agricultural implements will find a very wide market and therefore their manufacture will develop. The carrying out and maintenance of irrigation canals or other means of irrigation will find employment for both men and machinery. Part-manufacture of agricultural output before it is put on the market, the preparation of various kinds of manure, etc., will develop many subsidiary industries which will be of great benefit to the country.

If we turn to the countries which are highly progressive in material production we find that in every case the development of agriculture has gone on simultaneously with that of manufacturing industries. The United States of America is not only great in its manufactures but also in its agriculture. Indeed it may be said that it is more an agricultural than a manufacturing country, although in its latter aspect it is so well developed. English agricultural lands are very well developed. The case here as also in Japan is different owing to the limited area within which it has to develop and the advanced condition of the country. England's

problem is solved through colonial expansion, and Japan's need in that direction is acute. In Germany where land is least fertile the system of agriculture is the most advanced in the world even when we include France and the United States in the comparison. This is only natural inasmuch as otherwise the manufacturing industries in a developed country would have tempted away all producers on the soil if the occupation of the latter did not simultaneously become profitable.

Therefore, it behoves us that we should devote as much attention to the development of our agriculture as to that of our manufactures. This is necessary inasmuch as there is little prospect of agriculture developing itself without such deliberate and conscious effort by the people. The rural people are ignorant and agriculture is a dispersed industry in which combined and organised action is more difficult than in concentrated industries like manufactures. Also the problem is vast as the country is so big. Further, our active capital is rarely drawn towards land improvement. It mostly seeks re-employment in manufacturing and financing industries in which it is usually made. Not that there are no profits in agriculture but that these have little opportunity to be saved for swelling active capital. So, either they are wantonly

used up in extravagances or hoarded away from all active use. This potential capital must be coaxed out by a net-work of banks and other similar institutions, and deliberately organised for the use of agricultural improvements. If the relation between the development of manufacturing industries and agricultural improvement be properly comprehended, there can be no doubt that capital, insufficient though it may be, must be properly organised in order to be drawn out and be employed for both the purposes. Otherwise it will be like developing only one limb of the body by special care while the other will be wasting away, and, if successful, there can be, in the long run, only unilateral development with the danger of a spinal curvature. The case of England and other countries should not delude us inasmuch as the economic unit there is not the United Kingdom but with the colonies included. In this economic unit the development of the two sides of production is properly maintained. India, should attain to this equilibrium within its own boundaries as it has little scope in this direction outside itself.

Finally, it needs to be especially emphasised that such great economic development is possible for India and can be maintained only when the growth of population of the country is not as rapid as the increase in the production of the country both agricultural and manufac-

turing. The prosperity or adversity of a country is entirely a question of balancing between the two, viz., increase in material wealth and that in population. To have material welfare and to maintain it permanently it is necessary to have permanent checks upon the growth of population, so that it may not continually press upon the limit of material wealth. Otherwise whatever may be the increase in the latter its effect will be counterbalanced by a corresponding increase in the former. It is a general proposition that the tendency of the growth of population is greater than that of material wealth. This is the normal law which has its supersession only in a few countries, *e.g.*, France, as a result of peculiar social and political circumstances. Now if this natural law be allowed to work fully there can be no country in the world which can maintain its material prosperity in the face of this menace of nature. There are various well-known checks to the increase in population but all of them are the results of misery and distress except voluntary restraint. This again is either moral restraint or artificial means to prevent increase in the birth rate. These latter are nowadays advanced by the neo-Malthusians, but probably we should at present rule them out for India on the ground of their inconsistency with the current

moral code. If we are to depend upon voluntary restraint for an effective limitation of the growth of population, it is necessary to make that work in the most favourable circumstances. From this point of view many of our social customs are a drag, especially the custom of early marriage and the joint family. Both favour an increase in the birth rate without any reference to the means of acquiring wealth. Another important point which will finally solve this question so far as it can be solved is to attain to a rigidity of the standard of living so that a man will love his material welfare so much as to refuse to set up a new family which will mean its lowering. This looks sordid but is the only effective means of obtaining and retaining the material prosperity which can be achieved by harnessing nature towards supplying the needs of man.

CHAPTER VI.

FORMS OF PROTECTION.

There is now a general desire throughout the country that manufacturing industries should be developed in India. Every well-wisher of the country will agree and support this. But there is likely to be some grave divergence of opinion as to the means which should be adopted to achieve this end. Usually when people think of encouraging industries, they presume that a heavy tariff is the only means of protecting or encouraging industries. In this chapter we shall deal with the means of encouraging industries. These are mainly: facilities in land, transport, and credit; home purchase of Government stores; exploration and co-ordination of the industrial resources of the country, scientific research and technical training, and commercial intelligence in handy, useful forms; co-operative credit and sales' associations, especially for agricultural output and that of small industries; countervailing duties to neutralise undue advantages given by a foreign country to its products; direct subsidy; and protective tariff. We shall deal with some of these in detail.

FACILITIES IN LAND.

All industrial organisations in or near big cities find difficulties in securing land for their further expansion at moderate cost. Apart from the high price of lands near cities there is the additional difficulty that land in India is held in small plots by many owners. An industry, if it wants to expand, has to negotiate for lands with several owners; and as it must buy plots of lands situated contiguously to one another any one or more of the clever owners may push up the price to any extent, and even foil the attempt of the particular industry desiring to expand. Such an industry must successfully negotiate with all the owners at the same time. At such a stage Government can usefully intervene by securing adequate lands for the development of the industry, at the prevailing market rate. On the face of it it may seem to be a small concession to the industry, and, in any case, an advantage which is not continuous but operates only at a particular stage or stages in the growth of the industry. But in a country where land is so minutely subdivided and where the number and size of existing industries, except only in a few directions, are so small, and where a small beginning has already been made with success and an expansion is urgently needed and eminently

desirable, such facilities may go a long way towards making a struggling industry prosperous.

If we look also to the nature and direction of industrial development in India and to the demand for manufactured articles in rural areas, we find that only a few industries, especially in their formative stages, can hope to organise a steady market for their products from the rural areas. In the beginning either when they start or when they expand it is essential that they should be situated as near as possible to a town. A little later on, in the case of some industries even from the beginning, it is necessary that they should be within easy reach of cheap and rapid communication with a wider and better organised market than can be found in villages. Comparatively speaking, towns in India are very small in number and their population is a small fraction of the total population. But in the aggregate their influence is great, especially at the initial stages of an industry depending on a steady demand from the towns. The total urban population of India is three crores. This is just less than the total population of England or three and half times the total population of Scotland and Ireland or about two-thirds of the total population of the United Kingdom. Taking the whole of India the *per capita* income of the people is about 12

per cent. of that of the United Kingdom. But in cities it is much higher. Roughly, we make take 25 per cent. as the figure for Indian cities. At this rate the spending power of the urban population of India is in the aggregate about 18 per cent. of the whole of the United Kingdom. Thus the desire of most Indian industries, even if they be small, to be near some town is not without reason. The demand is steady there and, in the aggregate, large; also it is concentrated and well organised. As industrial development in India is comparatively meagre this tendency to be near towns operates with greater force.

They also want to be near means of easy communication with other towns and distributing centres. The most important means of communication for long distances, except in some eastern districts of Bengal and partly in the region of the lower Indus, is the railway. A glance at the railway map of India will show that only the Ganges-Jumna doab and the hinterland have been effectively developed for purposes of internal trade. The rest of Indian railways are either for external trade, connecting internal distributing centres with the ports, or for military purposes. Most of the important towns are on the railway route. This is partly the cause and partly the result of railway development. Railways were constructed where there had been towns, and

towns on railways have developed more rapidly than towns 'without' a railway connection.

In any case, the importance of suitable locality near a town or within easy reach of several towns connected by railroad has become a dominating factor in the growth or success of an industry. Hence for small industries which are only growing and which have the chance of expanding to large units, facilities in acquiring lands are vital. In the case of other industries in which mass-production is likely to grow rapidly, these considerations are perhaps not so important. But in their case too, they must be located, although away from towns, near a railroad. The jute industry of Bengal has grown in this way; but it would have been very difficult for it if there were no river and the railroads. Cawnpore is an example of the growth of an industrial centre which is entirely the result of communication and, originally, a strong local market for the industrial output, found in the military cantonments in and within easy reach of the city. Its importance as a place situated in an area from which raw materials and cheap labour are available should not be over-emphasised. There are many other places with such advantages, which have not grown likewise. It is one of the two biggest centres of woollen mills, and wool is not grown

near Cawnpore. Again, the Tata Iron and Steel Company has developed a fine town at Jamshedpur. In spite of the fact that it started with a huge capital unusual in India at least in those days, it had no little difficulty in having adequate land and it received help from Messrs. Tata & Sons, another big firm with huge resources. The latter succeeded, after long and tiresome negotiations, to secure the land, and yet most of the land belonged to one of the Indian States of Orissa. The hydro-electric scheme in the Presidency of Bombay could not have succeeded without Government help in regard to obtaining land. This not only affects the particular industry but it is likely to revolutionise the whole industrial organisation of Bombay by providing cheap power which is available nowhere else in India except in Mysore and Kashmir.

Thus we see that an important form of encouraging an industry in India at the present stage is to give facilities to suitable industries for acquiring land near a city or an important railroad because, in the beginning, most industries in India depend on the cities for steady and secure custom.

FACILITIES IN TRANSPORTATION.

The railway rate varies over distances and for different articles as also between different places. For example, the rate be-

tween Calcutta and Delhi for kerosine oil is 12 as. 3 p., for iron 12 as. 9 p., for sugar 14 as. 9 p., and for grains 9 as. 4 p., whereas it is higher for a shorter distance for intermediate stations. Also the rates vary according to the time of the year. Besides, there are special slump rates. A careful analysis of the railway rates reveals the fact that the trade which receives the greatest concession at the hands of the railways is that in grains from internal distributing centres like Delhi, Cawnpore, Muzaffarnagar, etc., to the ports. Cotton, raw and pressed, and various other raw materials which are exported also receive such concessions. At the same time imported articles receive specially favourable rates for transport to the internal distributing centres. There is no doubt that such concessions over long distances are for the profit of the railways as the traffic with long leads is heavy, whereas at intermediate small stations—that is, more than three-fourths of all stations on Indian railways—it is often difficult to fill up one wagon at one station without waste of time. But Government control on railway rates is effective, and the approaches of small industrialists to special concession rates from a railway are very limited, especially owing to the particular form of management. Ultimately it is to the interest of the railways to draw traffic by encouraging local industries. But

the start has been with raw materials, and the traffic has grown so big in these that no railway thinks of a small industry catering to the needs of a few towns in the vicinity. There are so many special rates which are lower than the normal mileage rate that it is very difficult for a new venture to market its goods to a distant place. Nor have the railways been prudent enough to develop intermediate stations even in the trade of exported and imported articles. For cotton and grains which form about half of the total exports of India there are not more than one dozen centres in the whole of Northern India. In some cases it becomes cheaper to transport articles away from the port of destination to reach a centre from which the rate to the port is very cheap. This is an evil in internal trade which is the result of subordinating railway rates entirely to the needs of external trade. This operates very much against the development of industries in India. This will be evident from the accompanying figures of 1917 with regard to pressed cotton.*

Therefore, it is not surprising to find that "the cotton mills (at Delhi) spin only the comparatively low counts for which the cotton

* The Monograph on Indian Railway Rates by S. C. Ghose, Part I., Chapter V., page 228, published by the Government of India.

Distance to Karachi	Rate to Karachi	Cotton despatching centres	Distance to Delhi	Rate to Delhi
Miles	Rs. A. P.	Names	Miles	Rs. A. P.
576	1 0 9	Multan	454	1 3 2
684	1 3 9	Lyallpur	387	1 0 5
673	1 3 5	Abbaspur	396	1 0 9
625	1 2 1	Chutiana	444	1 2 9
607	1 1 7	Dharkhana	454	1 3 2

of the district is suited,"* because these mills cannot buy the superior cotton of the Punjab although situated nearer to it than the port, and have got to carry on with the raw materials of the district only. The difference in the rates is so great that even in the Punjab, mills cannot grow because of the adverse rates for Indian piecegoods as against piecegoods coming from the ports, whether home made or imported. The same will be found in regard to most articles produced in India and exported. We shall illustrate the same point with an imported article, viz., sugar. It is argued that the rate is lower for long distances of wagon loads. This may be justified. But the special rate for sugar from Howrah to Sutna, a distance of 615 miles, is 8 as. 11 p. per maund on actual weight, whereas local sugar from intermediate stations to Sutna in wagon loads (not actual weight) is 9 as. 10 p. for a distance of about 560 miles. The special rates for sugar from the ports of Calcutta and Bombay are not for wagon loads but for actual weight, that

* Report of the Indian Industrial Commission, page 27.

is, carried in any weight however small. "Stations such as Markundi on the East Indian Railway, Dabbara and Dhanari on the Oudh and Rohilkhand Railway, have special rates for imported sugar from the ports irrespective of weight and at railway risk. Distance for distance these rates are in many cases lower than the rates even for wagon loads of indigenous sugar carried at owner's risk."* Nor can it be said that wagons carrying goods to the ports return empty, and therefore favourable rates are offered for the inward journey. On that principle special concession rates should be granted on the East Indian Railway for sugar coming from up-country towards Calcutta inasmuch as considerably more empty wagons run towards Calcutta than towards up-country from Calcutta. This preferential treatment in the past is, we believe, responsible, to no small extent, for the gradual but continuous decline of the sugar industry of the United Provinces. Owing to this factor as also to competition between rival railroads since 1905 the imported traffic has been immensely encouraged at the cost of home industries. Such discrimination should be stopped at once by Government interference. Indeed, the reverse process should be under-

* Indian Railway Rates by S. C. Ghose, Part I., Chapter V., page 230.

taken whenever the needs of a local industry warrant that procedure. We have given only two illustrations, one from exports and another from imports. But the same thing is seen, in almost every article which is the subject of export and import trade on any important scale. The past policy has been definitely to encourage external at the cost of internal trade. It is necessary that the transportation of the products of home industries should be similarly encouraged, and whenever the two interests clash, as on many points they do, the interest of home industries should, in all cases, prevail. The problem is much less complicated in India than in England where Government interest in railroads is limited, or in the United States of America where railroads are private concerns. *

With regard to inland steamers also the above observations apply with certain modifications. But their scope is limited as Eastern and Southern Bengal are the only important places of inland shipping. Here however there is a grave danger to railway development. Almost every scheme of rapid transport by railways, if it threatens steamer traffic, is attempted to be frustrated. Only a few have been given effect to. Eastern Bengal is thus made the happy ground for profit making at the cost of its development. Many such schemes have been shelved. The concern for

the steamer companies' profit is seen in a glaring example of iniquity revealed in one typical case which we shall describe. After the opening of the railway route from Calcutta to Mymensingh-Dacca; via Serajgunj-Jagan-nathgunj, of the Eastern Bengal Railway—which, by the way, is owned and managed by Government—all facilities for traffic, passenger or goods, from Dacca to Calcutta by the new route have been deliberately withdrawn for the benefit of the steamer service between Goalundo and Narayāgunj. In England the railway rate is low because of the competition of coastal and inland steamer services, and the two competing services assure the cheapest rate for transportation. In India, in the case cited above which is only one among many, the steamer service is maintained apparently at the sacrifice of time and money of the people of the two northern subdivisions of the district of Dacca and the southern parts of the district of Mymensingh.

The case of coastal steamer service is not very much different, especially the system of rebate granted by the older companies in order to compel a customer not to seek the services of a rival company. It is to be hoped that the legislature will soon take up the question through a private bill which will come before it in its next session.

Once the importance of railway rates on

the development of home industries is realised the programme of encouraging them by such rates would be rapidly framed. Within a very short time this will more than compensate the railways. According to T. Robertson, Special Railway Commissioner for India, "the more numerous the local industries are along a line of railway the greater always is the prosperity of that railway. They not only give their products to carry but their presence makes a great deal of traffic in passengers and goods". Such traffic consists in building materials, raw products to and finished goods from the local industries, by-products, consumption goods for the industrial population, and in passengers.

FACILITIES IN CREDIT AND FINANCE.

The position of India in regard to banking facilities is very depressing. The accompanying table will show India's position as compared with some other countries of the world.

Thus it will be seen that the position of Indian banks is insignificant whether we look at them from the point of view of their capital or deposits or area or the number of persons served by each bank. Of course, there is indigenous banking and its capital and work are of some worth. But they are not so great as one would expect nor is the

Countries.	Area in 1,000 sq. miles.	POPULATION.		BANKING CAPITAL.		DEPOSIT.		NUMBER OF BANKS.		
		Total in millions.	Per one sq. mile.	Total in millions.	Per capita.	Total in millions.	Per capita.	Total.	Population per bank.	Sq. miles served by one bank.
India	1,803	319	177	23 or 5*	£. s. d. 0 1 5 * 0 0 3½	118	£. s. d. 0 7 5	359	919,000	5,021
United States	3,565	92	25.8	482	5 4 9	5,767	62 13 8	28,012	3,641	127
United Kingdom	122	46.8	384	88	1 17 7	2,355	50 6 5	9,357	5,000	13
Japan	140	56.6	404	67	1 3 8	404	7 2 9	5,874	9,636	24
Canada	3,604	8	2.2	23	2 17 6	324	40 10 0	3,327	2,404	1,083
Australia	2,975	4.5	1.5	35	7 15 6½	316	70 4 5	2,356	1,910	1,262

* Including the capital of exchange banks which also do extensive business outside India, it is £23 millions; excluding that it is £5 millions.

price of money at all attractive. Moreover, indigenous banking depends finally upon the banks inasmuch as its financing capacity is limited by the accommodation which the shroffs receive at the latter. .

The above figures represent India's ordinary banks with their branches, that is, the Imperial Bank, the exchange banks, and the joint-stock banks. These have no direct effect on the growth of industries, but considerable indirect effect. When a business flourishes, transactions in that trade will create more bills, and their discounting will finance such transactions. Without this so many exchange transactions in that trade cannot be maintained. With less exchange transactions the demand for the products of that industry falls off, thus affecting the industry itself. Therefore, the effect of ordinary banking on the industrial development is great and such banking can give direction to the industries of a country, especially in the absence of industrial banks. Also, such industries approach banks for short loans on approved securities. In both cases, the direction of development of industries lies, to an enormous extent, in the hands of ordinary banks. By facilitating or restricting the discount of bills arising out of a particular kind of transactions, the banks can make or mar the fortune of an industry. Unfortunately, racial misunder-

standing hinders the financing of industries started on the initiative of Indians especially those with small influence in the money market. "Indians suffer in a special degree from this deficiency (the difficulties in obtaining loans and financial assistance), for, among other reasons, they find it difficult to satisfy a bank, whose directorate and superior staff are entirely European, as to their financial position".* The only other reason given by the Commission is that "such applicants for assistance are often unable to exhibit their financial position in a form intelligible to a banker". For this they recommend, rather queerly, that all recipients of loans should be compelled by Government to keep accounts in the English method. A much better method, from the point of view of the country, would be to compel every bank to keep an auditor who understands the Indian system of keeping accounts.

Again, if we divide the country into rural and urban areas it is found that the former has to contend against much greater difficulties than the latter as the capacity of the shroffs, the link between the two, is the ultimate limit to the expansion of credit in rural areas. The charge of the village moneylender is also very

* Report of the Indian Industrial Commission, page

high. "The *mahajan* charges high interest; landed security is good, but is not easily or rapidly realisable; debtors are uneducated and have no idea of business methods or of punctuality in meeting their obligations; their income is precarious, depending as it does on the nature of the season; and, partly in self-protection, the *mahajan* charges a rate of interest which local custom readily tolerates."*

Further, Government have interfered in some areas, no doubt with good intentions, but with disastrous results. The courts of justice have the right to determine a fair rate of interest. This is usually accepted as twelve per cent. per annum, never more than eighteen per cent. But if the *mahajan* really runs a risk as he thinks that he does, he evades the law by forcing the borrower to recognise a higher amount as borrowed than the actual amount, so that the court's decree on this higher amount at a lower rate of interest will yield him his lower amount at the higher rate stipulated for. This is not only morally degrading to both the lender and the borrower but inevitably creates difficulties for the borrower who is the weaker party.

In the case of agriculture, Government have interfered, in some provinces, *e.g.*, the Punjab, Chhota Nagpur, Bundelkhand, and

* *Ibid*, page 211.

some parts of the Central Provinces, by which agricultural land cannot be sold to non-agriculturists. The object is to prevent the creation of a class of "rent-eaters". But the result has been a great limitation of available credit inasmuch as the only security which the cultivators can offer is their land. Their crops are more or less an uncertain factor. Their homestead, domestic and agricultural implements, and cattle are rightly exempt from distraint. Thus the price of money has not only gone up but money itself has become scarce. In the Punjab the evils have been less pronounced in the rapidly developing canal zones because of the increased output.

The remedy of all this lies in the extension of banks. The Imperial Bank of India started in January 1921 with the undertaking to open one hundred new branches within five years, of which the locality of twenty-five is to be determined by Government. So far rural areas have been entirely neglected. This means that agriculture, which engages more than seventy per cent. of the population and on the income from which about eighty-five per cent. of the population live, has to depend upon the indigenous system. At present the only thing which can be done in this line is to give better facilities to the shroffs, who connect the banks with the village financing agencies, to borrow more freely from the

banks. Also rapid and systematic extension of the co-operative credit and sales associations should be undertaken.

For industries which mostly attempt to grow by the towns the problem is not so difficult. But the present system of indifference of the banks towards the small industrialists must be radically changed. "Industries" is now a provincial subject. The Provincial Government should appoint a standing body of experts to deal with this question. Gradually this body should be connected with similar bodies in the districts and the subdivisions. Every effort should be made to help an industrialist wherever he deserves it. Loans for short period, and facilities to discount bills to finance the marketing of the products of the industries as also bills for buying raw materials can help materially to build up small industries which otherwise would have little chance of success.

The above deals only with the help which ordinary banks can be made to give to industries. Although such help is of great consequence the more important and direct help can come only from industrial banks. There are only a few such banks in India, of which the only important one is the Tata Industrial Bank. But it does business also in an ordinary way, and, from 1922, has restricted its operations in financing industries. It has

a total paid up capital and reserve of less than three crores of rupees.*

Thus for all practical purposes one may say that industrial banks have not developed in India. A great difficulty in the way is that, unlike ordinary banks which lend for short periods only, an industrial bank is limited, in its operations, by the depositors. It can finance industries, which require long-term loans, with its capital, reserves, and only that portion of its deposits which are fixed. But in other countries this kind of bank has succeeded so well that there can be no objection to a rapid development of industrial banks in India on the initiative and control of Government. The striking development of such banks in Japan and Germany has contributed to a complete change in the industrial system of those countries. There is no reason why the same should not happen in India.

We shall deal briefly with the industrial banks in Japan and Germany.† The Nippon Kogyo Ginko, established in 1902, is the industrial bank of Japan. It is a joint-stock company formed according to the Law of the Industrial Bank of Japan (1900). It does

* Since 1923 this bank has ceased to exist as a separate bank and has been amalgamated with the Central Bank of India, Ltd.

† Note by the Department of Statistics, Indian Industrial Commission, Evidence, Volume V.

work of all the three kinds as done by the several banks, viz., ordinary banking, exchange financing, and industrial banking, although its special work is the last one. It has a paid up capital of twenty million yens or three crores of rupees. At the start it had a Government guarantee of five per cent. dividend till 1907. Government directly control its business, hold a large portion of its shares, and appoint the higher officials. The operation of this bank is mainly confined to cities. For the rural areas the provincial hypothec banks called Noko Ginko finance industries but their main function is to act for agriculture. There is one such bank within the jurisdiction of each prefect, with a capital of at least one lakh yen or one and half lakhs of rupees. These banks are on the lines of the German Hypotheken Banken and not on the Raiffeisen model, that is, they deal with long-term loans for the development of lands, and the banks have the right to see that the loans are utilised for the purpose for which they have been made.

The special features of industrial banks can, however, be studied in the German commercial banks called Grossbanken. They also do ordinary banking work of receiving deposits, granting loans, and discounting bills. But, in addition, they finance industries and lend capital on long terms. Like issuing

houses they underwrite issues and place loans. They also construct factory buildings and fit up plants, etc. They float new companies. For this purpose they sometimes raise capital from the public and sometimes a bank or a syndicate of banks buys shares. They do extensive business as stock-brokers, buying and selling shares as members of the Stock Exchanges. To stabilise the value of shares they sell when the price is high and buy when it is low. Before the war there were eight Grossbanken with a capital of more than ninety crores of rupees (£ 60 millions), a reserve fund of twenty-nine crores, and a total deposit of three hundred and sixty-two crores. Their dividend is rather low, being usually seven or eight per cent.

The organisation of Grossbanken is elaborate. For purposes of collecting deposits the banks have (1) *filialen*, that is, branches; (2) agencies and *kommanditen*, that is, private houses supplied with capital by the Grossbanken, in the profits of which the latter participate; (3) *depositen-kassen*, that is, deposit-offices; these are the links connecting the banks with the depositors, especially the small ones; these also deal on commission with the securities of the banks. At present there are practically so many banks through which the business of the main banks

develops and through which a good deal of clearing house work is performed.

The Grossbanken lend their credit in several ways. The important ones are: (1) Overdrafts on current account, secured by the hypothecation, usually, of all the assets of the borrowing firm, and also of sureties. (2) Discount of mercantile bills. (3) Acceptances, that is, bills drawn upon and accepted by the Grossbanken, usually for three months, but renewable by re-discounting with another bank. (4) Advances on securities; these form an important item of the banks' advances. (5) Loans on *blanco kredit* or unsecured credit; in such cases the financial credit of the borrowers is scrutinised. There are many firms whose special work is to find out the financial credit of persons engaged in industries throughout Germany. On this information *blanco kredit* is given, the banks being entitled to inspect the borrowers' books. (6) Advances on goods and goods in transit; as distinguished from (1) above, here the banks hold such goods in possession. These are cases when the producer wants to wait for better prices. (7) Advances on book debit; these are very cautiously given and only for three months. Between 50 and 75 per cent. of the firm's book debts form, in such cases, the banks' advances.

The Grossbanken have very greatly

helped Germany in developing its industries so rapidly. They are represented in the directorate of many joint-stock companies formed for purposes of trade and industry. They have representatives on iron industries, banks, machine industry, saltwork, instrument making, mining, smelting, cast steel, aluminium works, works in copper, brass, and metal screws, storing electricity, making railway requirements, insurance companies, etc.

These banks have also developed the foreign trade of the country, and are represented on the directorate of many firms engaged in external trade. Such banks are always eager to be in a company and learn the conditions of industries so as to help their development. Unlike in other countries, they rarely aim at the biggest dividend, but attempt to do the maximum business in developing industries. From this point of view they approach more co-operative than ordinary banking.

For the development of particular industrial undertakings the system of industrial trust or financial corporation is highly suitable. But its scope is limited inasmuch as its interest will resist the increase in the number of concerns in any industry, which are not under its control. Therefore, for India the system of industrial banks is most suitable. This is also supported by the Indian Indus-

trial Commission. In the beginning it may not be profitable to have exclusively industrial banking by such banks, as the Tata Industrial Bank has probably found out from its experience. Even in Japan and Germany the industrial banks perform all ordinary banking work in addition to financing industries. The same should be done in India as well. But sufficient precaution should be taken from the lessons of the bank failures of 1913-1917, and a rigid distinction made between liquid and fixed assets and liabilities of a bank, so that in no case should short-term deposits be invested in long-term loans. "Share and debenture capital and long-term deposits may legitimately be used for the former purpose (industrial financing), but short-term deposits never, and any attempt so to employ them should be most strictly prohibited, if necessary by law."*

Such banks should be established at once and, if necessary, by Government initiative and under Government control. The most important work before them will be to keep in touch with the small industrialists in which the country abounds. They should specially study the financial conditions and prospects of such industries, and finance them whenever necessary. As the needs of India are very

* Report of the Indian Industrial Commission, page 216.

wide and as such banks must, in the beginning, be limited in their number, their study of small industries and industrialists must be extensive. It is a mistake to suppose that industries can be developed one after another. An attempt to develop a large number of industries, even when they are not apparently connected, has a greater chance of success than haphazard attempts to develop a few industries. The reason is that development of many industries assists and encourages one another by creating demand or absorbing the products of all. Therefore, the extensive work should be undertaken all at once. For this purpose Government help is essential. Government should invest money in this line not, as they often do in other such departments, to derive as great profit as possible, but a small dividend should be aimed at, so that a large field of industries may be reached. As in Japan, Government may guarantee, as they did in the case of some Indian railroads, a minimum dividend to such banks if they are joint-stock companies. But Government control should, in all cases, be effective. This should not, however, mean, as it has in many cases, the starvation of smaller towns and of undertakings by Indians. The Indian Industrial Commission say also: "We consider that the establishment of industrial banks working on approved lines is of suffi-

cient national importance to justify Government assistance." They do not formulate a detailed scheme of such banks but say generally: "We are of opinion, therefore, that an industrial bank should possess a paid-up share or debenture capital high in proportion to its total business; it should observe the usual precautions in not allowing too large a share of its funds to be used for the benefit of any single interest or group of financially interdependent interests; its loans on plants, buildings, and land should be carefully considered and should be limited in each case; the larger portion of its industrial business should be confined to the provision of working capital; it should provide initial capital with caution, at any rate, during its opening years, and should not itself at first attempt to float companies, though it may advise and assist in other ways persons who propose to do so. The main factor of safety in an industrial bank is the judicious limitation of each class of business to its proper proportions".* Government can also help the bank by providing it with long-term deposits which they have ordinarily as balances. The Commission seem to be putting in too rigid conditions for an industrial bank, especially that prohibiting it from floating companies. This is

* Report of the Indian Industrial Commission, page 217.

an important function of similar banks in Japan and Germany. The need of India is greater inasmuch as the initiative is not so strong, and altogether new grounds will have to be broken. As the experience of Japan and Germany is available and as India specially requires such help, we think that, under proper safeguards, say, approval of the Government industrial board, floating of new companies and helping others should be an especial charge of Indian industrial banks. Another feature would be that such banks would tend to confine their operations to big cities and big industries. Both can be, and in the case of India, perhaps in some respects, have been pushed to extreme, to the great detriment of the large class of small industries dispersed throughout the whole country. To reach the smaller towns, branches, agencies, or subsidised private firms may be organised. To attract deposits, deposit-offices may be opened in all subdivisions and districts, and even in important villages or groups of villages, if need be, through the post office or co-operative societies or any other Government or public organisation, *e.g.*, the *punchayet*.

The greatest difficulty with regard to credit is for the small middle class industrialists to secure current finance. Government, in the provincial departments of industries,

should arrange for this. The working, organisation, and financial position of such persons may be enquired into by this department, and, on Government authority, with a guaranteed interest, the ordinary banks may be made to grant cash credit to such industrialists. The possibilities of such development are almost boundless, but its success will entirely depend upon the department and its organisation. Special effort should be made to reach the small industrialists and encourage them in profitable undertakings wherever that is justified by the circumstances of their undertakings. For this purpose the initiative will lie with the Government department, and the technical question of finance may be dealt with by it on the expert advice of some bankers. It is only by this means that such industries can be made to develop till industrial banks grow everywhere to take up all such work. As already said, too much emphasis need not be given, as it is done now, to keeping accounts on the English method. Banks should be compelled to understand and assess at their proper value all undertakings which keep accounts on the Indian method. A thorough understanding of the Indian method of accounting should be made a compulsory part of a banker's qualifications. Whenever that system is really defective from the point of view of showing the financial

condition of a business, Government can enforce minor changes as condition precedent to the granting of financial facilities.

• More direct Government financial assistance should be given to industries, especially big industries, whenever their development will be of public benefit. The loss to Government, that is, the tax payers, will be amply compensated by the gain to the country as a whole. Technically speaking, such a case will arise whenever the consumers' surplus is greater than the subsidy granted by Government, that is, the difference between the cost of production on private initiative and the lower price which the products will command in the initial stages of the industry. Whenever the prospects of such an industry are promising Government help should flow in without grudge. Further, Government may help by guaranteeing a dividend for the money lent to finance such industries or by undertaking the purchase of a fixed amount of the output at a definite price. The former will be of great value in an undertaking in which, from the nature of it, no dividend can be declared for some long time. When it is necessary for Government to raise capital directly they may either buy shares themselves or help to raise loans. The latter should be raised as far as possible in India. If it be raised outside, no interest in the

management should go automatically with the capital raised abroad. The capital raised in India should also be distributed in such a way that the small investors are given the maximum facility to subscribe to the capital of the company. In this way the small investors can be interested in the development of Indian industries. At present they are, in most cases, shut out from the bigger enterprises, and their faith, not very strong as yet, does not encourage them to invest in small industries, about which they can get little information, unless they be experts themselves or take a disproportionately great trouble or expense to find that.

SCIENTIFIC RESEARCH AND TECHNICAL TRAINING.*

Simultaneously, Government should set about organising scientific and technical services and providing for research work in connection with the possible industries in India. An Indian Chemical Service requires to be organised at once. Research laboratories should be located in a few central places, and equipped with the latest apparatus. Such work should be undertaken in botany, bacteriology, zoology, and entomology. The last is at present almost entirely neglected. Effective means should be devised to put the researchers in touch with the industrialists

* Report of the Indian Industrial Commission.

with safeguard against too much diversion of research work for the benefit of any particular interests. As far as possible researchers should be recruited from the Indian universities and other scientific organisations in India.* The location of such laboratories should be determined, partly at any rate, by the location of prominent industries in the country. Following the recommendations of the Indian Industrial Commission the wasteful method of maintaining the Scientific and Technical Department of the Imperial Institute of London has been rightly abandoned. This method stands condemned by its results. But the system adopted, for example, at the Technological Institute at Cawnpore, bids fair to re-instate the system in India. Here the expenses per student are about three thousand rupees per annum. At this cost he may be sent to the best institute in the world and trained there.

Government should also provide means for a complete system of industrial and technical education; the cost need not be extravagant. At present technical scholarships for studying in foreign countries are granted to students without any plan behind the system. For the present, industries which are altogether new to India may be left alone.

* *Ibid*, pages 98-99.

In any case the few scholarships should not be diverted for this purpose unless the resources of India regarding such industries are definitely known. Men of experience in existing industries should be sent abroad further to study in specialised branches. For training artisans and skilled labourers there are at present very limited facilities. Government should develop such institutions as rapidly as possible. Whenever such institutions are started by private bodies Government should assist them in all possible ways. To the country such expenditure, if properly organised, is repaid many times over within a short period. Such industrial and technical schools should be put under the supervision or management of persons who have knowledge of both the practical working of the industries and their economic conditions. For smaller industrial undertakings and for cottage industries suitable training can be given only by these means.

In technical schools training should always accompany actual work in factories and workshops, or it should be given in industries actually running to which theoretical classes may be attached. Technological instruction should also be similarly connected with industrial concerns. Large engineering shops should be utilised in giving practical training to artisans as apprentices during and a little

after the period of their theoretical training. At present this is done only to a very limited extent. Government should organise the whole thing into a well regulated and properly distributed system. The engineering colleges should work in close touch with industrial institutions and leave the lower grade work to the latter, and devote themselves to high and specialised kinds of work. Commercial education is out of touch with commercial concerns. These too should be brought together in the interest of both. What passes for commercial education is mostly non-technical clerical work with a little of theoretical training in banking and credit. The important colleges in the country do little by way of real commercial training. The system should be wholly re-organised. After a general training as the basis of the system, special study should be undertaken in different lines which are already being worked or which have great possibilities in the country. Keeping accounts and knowing what legal procedure one has to follow in commerce do not exhaust the whole line of commerce as they do in our commercial institutions. What is more important is a detailed study, on the one hand, of the sources from which particular articles come, the possibilities of new openings in this direction, any improvements in the quality of the articles dealt in, the vices of the trade, etc., and, on the

other hand, of the markets to which the articles can be transported and the possibilities of such markets. Without any such special study the trained output of the commercial institutions will inevitably tend to be either mere book-keepers or accountants. Therefore, such institutions should extensively seek the co-operation of commercial men who should be especially encouraged to come as a controlling factor in our commercial institutions.

COMMERCIAL INTELLIGENCE.

At the same time commercial and industrial intelligence should be organised by Government. At present the working of this body in the provinces is behind the curtain. It should prepare such intelligence in a handy form, and special measures should be taken to distribute it as widely as possible. Such information should be prepared in English as also in the vernacular languages of India. The statistical department of the Government of India also should be remodelled so that a larger variety as also greater accuracy in the figures collected may be achieved. The department is already doing very valuable work but there is scope for improvement. The Indian Industrial Commission rightly condemn the department for the comments it makes on the figures published by it. It should be a merely

compiling agency. This will materially add to the good work which is being done by it.

EXPLORATION OF RESOURCES.

Government have done a good deal in this direction. But a good deal more is necessary. The country is so vast and its resources so varied that more intensive work in exploring the resources of the country is required to bring out the full possibilities of industrial development of the country. In this direction the best work which is being done is by the Department of Geological Survey. Yet its work has been comparatively limited, and its services not easily available for the public. Facilities should be given to the public to requisition the services of the Department, on the system of commission payment, for exploration and prospecting. In iron, manganese, and coal, the work done, although limited to special areas, is very valuable. In iron and coal some private firms, notably the Tata Company, have done good work, but prospecting as such can never be undertaken, on an extensive scale, by any private firm. Therefore, the scope of the Department needs to be extended so as to cover much more ground than is done at present. Provincial agencies should also be instituted, and, as soon as possible, they should be further extended to districts.

During the later years of the War the Indian Munitions Board did much valuable work, but its work was necessarily limited. The Department of Industries has now been constituted, but, so far, its work has not been so good as was anticipated. This is no doubt partly due to the prevailing financial stringency, but, in view of the assured prospects of industries in India, finance should be provided for this department more than for any thing else. The first desideratum in this respect is an all-India chemical research laboratory as suggested by the Indian Industrial Commission. Unfortunately this very thing has been postponed on the ground of financial stringency. For this purpose even a loan should not be unjustified.

The success of the Provincial Departments of Industries has been attempted to be gauged by the number of inquiries received by their commercial intelligence branch.* But it should be remembered that even the use of this branch cannot be judged in that way, which depends upon the success of the industries which have followed the advice given. No information on this important point for judging the real work done in the department is available. What is published

* India in 1921-22, by Rushbrook Williams, Chapter V.

is the number of inquiries received and answered.

In each province, according to its physical configuration and possible resources, its Department of Industries should subdivide itself and organise the work for the whole province. An important thing for India is to have full knowledge of its water power. In British India it is only in Bombay that an attempt has been made to utilise water for generating electricity. The Tata Hydro-electric Works form the only such work. Outside British India Mysore and Kashmir have utilised the waters respectively of the Cauvery and the Indus for the purpose. It is believed by experts that such sources of power are abundant in India. In this respect Eastern India has remained practically unexplored, probably because the question is not so acute there since the coal mines are mostly situated there. But Eastern India is believed to be particularly rich in water power. Thus the prospect of harnessing the Brahmaputra and the Ganges at their sources should not be distant. This will considerably increase Indian resources of power.

“It is perfectly safe to say that about 7,000,000 horse power is in sight on the most conservative estimate and on the basis of

absolute minimum continuous power".* Some 350,000 horse power has been developed. The Survey has definitely examined sites capable of giving a further $1\frac{1}{2}$ million horse power continuously throughout the year. There are known sites, not fully examined, capable of giving more than a further $1\frac{1}{2}$ million horse power continuously. There are more speculative sites, of which little is known except that both the water and the distributed falls exist which Meares thinks as probably good for a further 4 million horse power. In making the last guess each river or site is mentioned and assessed. Yet there are hundreds of other cases where he is unable, as he says, to hazard a guess

He also discusses the water power of the various provinces. Assam generally has a large amount of potential power, far more than is needed to run all the tea industries. Bengal has large water power in its Himalayan area, in the Teesta river and its tributaries. So far as is known it has none within economic reach of the industrial area of Calcutta where coal is still cheap. In Bihar and Orissa there is not a great deal of

* Triennial Report of the Royal Society of Arts, 1923 : Paper on "The Development of Water Power in India" read by J. W. Meares, formerly Electrical Adviser to the Government of India.

power, and no thorough investigation has yet been made. Madras is favourably situated in having two monsoons over a good deal of the Province. A considerable amount of power has been located, but it will take several years to examine all the sites. There are several good sites within 80 to 100 miles of the new harbour being made at Vizagapatam. In the United Provinces the Himalayas are beyond the border in Nepal except at the western end. Yet there are considerable possibilities awaiting development, amounting to about half a million horse power. The Punjab has only recently begun a systematic survey, but it has been busy with the possibilities of the Sutlej river where it enters the plains. It is estimated that 100,000 horse power or more can be obtained on the lowest discharge. Bombay is so well satisfied with its known power that further survey has been stopped since 1921. The Central Provinces like Bihar and Orissa has only moderate possibilities. In the North-Western Frontier Province there has been no survey as the country is yet too unsettled for industrial development. Burma has both mineral wealth and power in abundance, but it is hampered by lack of enterprise, lack of roads, and lack of funds for development.

Thus it will be seen that there are tremendous possibilities of development of

water power in India, which can be utilised for the development of Indian industries. Government should organise 'so as to make this power available for the economic progress of the country without any avoidable delay. . .

Not only is it the duty of Government to explore the resources but they should also look to their conservation. Wasteful methods or reckless working with a view to making the best profit within the period of lease without any consideration for the interests of the country should be discouraged and stopped, if necessary, by legislation. The working of Indian coal mines has been found to be very wasteful by the Government expert who was brought to examine the system a few years ago. Fully one-third of the coal was found to be wasted in removing it from the pit to the pit-head. Similar is the case with the petroleum industry of Burma. This should be immediately checked since these two, along with iron, are the most important mineral resources of a modern industrial country.

COTTAGE INDUSTRIES.

Our cottage industries also should be attended to. Their importance in the national economy is so great that the subject requires to be dealt with separately. In some lines it is indeed true that the cottage industries have been or are being superseded by factories.

This is especially so in spinning and, to a less extent, in weaving. In towns establishment of rice, flour, oil mills, etc., is also another direction of this supersession. Yet, in every town, such industries still engage a large proportion of the population, and, in villages, practically all who are engaged in industries. Therefore, the number of persons thus employed are many times more than the number of labourers in factories which attract our attention so much in all discussions. In cotton spinning and weaving alone, which are being superseded by the factories, there were eleven lakhs of workers in 1911 as against two and half lakhs employed in the cotton mills. This only shows the very great importance of the cottage industries in the Indian industrial system. Nor is it true to say that, except a few, they are decadent. Cotton spinning almost died out and has only been partially revived by the new political movement in the country; economically, this is almost impossible to be revived unless there be a revolutionary improvement in the spinning wheel. As coarse clothing materials are steadily going out of use it becomes more futile to develop hand spinning. Weaving from coarse cotton yarn is also declining both in cottage and in factory industries. But there has been an increase in the number of weavers of medium and fine cotton. In metal working the cottage

industries are holding the field yet, and show little signs of decadence. Imported goods are on the increase, and this threatens the brass and copper workers, but at the same time the use of brass and copper wares is rapidly superseding the use of village pottery. In other metal industries the hand worker is even gaining ground. The goldsmiths are distinctly flourishing. Sericulture is another industry which is holding its own although it flourishes in certain localities only, for example, Bengal, Assam, Mysore, and Kashmir. But the industry can stand only if extensive improvements are made. At present reels are full of knots and loose ends, and are of different strength and size. Thus the weaver can hardly use these in the loom, and is increasing his use of China reels. In dye making industry the vegetable dye is fast decreasing in use, being displaced by the synthetic dyes. But the dyeing industry is very prosperous as it has taken to using synthetic dyes.

Nor do cottage industries follow the old methods as rigidly as they are imagined to do. The use of mill yarn by the weaver, of synthetic dye by the dyer, of sheet-metal by the brass and copper smiths, of rolled iron by the blacksmith, of fly shuttle loom by the Bengal and some Madras weavers, of sewing machines by the tailor, and of improved tools by the

town artisans shows that, whenever a change is profitable and within the knowledge and means of the cottage worker, he is always ready to adopt innovations.

Yet the condition of those engaged in such industries, especially in villages, is worse than that of the factory workers of the corresponding grade. The defects are many but mostly appear as extraneous circumstances which can be remedied. From the fact that such industries have widely held their position throughout the country, that they engage a very large proportion of the industrial portion of the Indian population, and that the work at home is much more congenial, healthy, and elevating than the work in factories, such industries should be encouraged by all means.

An important defect is the want of proper organisation of the market. This particularly affects the artistic products. At present they depend upon the local dealers whose knowledge of the market is limited, and whose limited capacity to take risks compels them to seek for standardised articles. Thus the fine and artistic products do not receive the same encouragement which they deserve. Some indeed have earned an all-India reputation, and have ready sales, *e.g.*, the artistic products of Benares, Murshidabad, Aligarh, Moradabad, Agra, Madura, etc. Even in the case of these the market, except for Madras *lungis*, is

limited to India. In the case of others, *e.g.*, Hoshiarpur ivory inlaid work, Sialkot silver wire damask work, Bombay pottery work, Dacca shell work, etc., the market is limited to a district or a subdivision. Moreover, it is seen that, wherever a strong demand exists, the artisans have improved the quality of their output by availing themselves widely of better implements and methods of production. Government can organise markets by encouraging stores for such products in or near probable markets, by holding exhibitions in which the producers also should be brought together to stimulate rivalry and emulate the successful efforts at improvement by some, and by developing the practice of advertising the wares. Establishment of an efficient system of industrial education should go a long way towards improving the habits and methods of the workers. At present there is little education. They depend on inherited skill. Nor are there any adequate facilities for such training except in a few localities. In our cottage industries almost every gradation of skill and craftsmanship can be found. Therefore, when properly developed, these can employ, in healthy surroundings, whole families. This means that the amount of a family's earnings tends to go up and thereby elevate the life and increase the efficiency of the workers. But this variety in gradation

also tends towards early employment of children, and it is very difficult to check this since the only effective remedy lies in education of the parents.

Another defect in such industries, which can be remedied by Government endeavour, is little understanding of the value of division of labour. If the workers are properly trained and the industry properly organised, and if the introduction of better tools and plants are facilitated, division of labour will perforce be adopted. There is no doubt that once this is done in the main work of such industries, its extension will be rapid. The value of division of labour should, therefore, be impressed upon the workers. The industrial schools can not only teach the details of the crafts, but, to a limited extent, the work of the master workman. At present no such training is given in India, and the few schools which exist give purely technical training. Commercial methods, methods of organisation, and control and direction of workmen are not taught. It is evident that, without a proper co-ordination of all these, merely technical training can but improve the industry to a small extent. Handloom factories or village associations can be started with very great profit in these lines. A further distinction needs to be made in our schools between industries, *e.g.*, weaving, brass and copper work, etc., on the one hand,

in which there is a strong competition from factories or other organised industries, and on the other hand, industries, *e.g.*, carpentry, blacksmithy, many artistic industries, etc., which have remained as handicrafts even in factories and other organised industries. In the latter a thorough knowledge of details of the craft, and a high degree of manual dexterity should be taught in the schools; that is, more emphasis should be directed towards quality than quantity, and make this higher quality, the normal work of the trained artisans. Even here a subdivision is needed; those workers who aim at working in a factory require more specialised training than those who intend to work in cottages. To the latter the commercial aspects of an industry should be properly emphasised.

A very important question in connection with the development of cottage industries is that of finance. It is being solved by co-operation. But the progress is so slow that means must be devised to increase the rate of progress. Such co-operative societies are needed for both production and distribution. The former are very limited in number, a successful one being the co-operative weavers' union of Bankura. Some attempts have been made to saddle primary co-operative credit societies with this work. This is both insufficient and dangerous. New societies for

this purpose alone and confined to this kind of work only should be organised. In the beginning they will naturally be confined to industries, the products of which have a ready market near at hand. But they should be encouraged to open new markets, if necessary, with direct Government help, and negotiate their products in distant markets in and out of India. Government initiative in such societies should always aim at withdrawal at the earliest opportunity, handing over such organisations to private organised bodies. For local collection of articles special agencies may be organised also, like the societies, on Government initiative to be withdrawn similarly in favour of co-operative unions. Financial aid from Government can very materially help the introduction of costly machinery and plant. Government assistance can also be given in the form of loans either direct to the cottage industries through the local agencies or to the co-operative societies created for industrial financing. To be effective such loans must be given on securities other than land as well. Government may insist on granting a loan only when a substantial sum has been raised by the worker himself or when he consents to come under the direction and control of the Industries Department. Special attempt should be made to free the workman from the clutches

of the moneylender. Where no co-operative credit society exists in the locality, Government should undertake to grant small loans, and, in all other ways, assist the workmen to obtain credit on easy terms. To enable Government to hand over such lending organisations to co-operative societies when these grow in the locality Government loans should carry a rate of interest slightly higher than that at which the money would be borrowed by Government for the purpose. Even this rate is sure to bring very substantial relief to the workers as the present rate of the moneylender is very high.

CO-OPERATIVE HIRE-PURCHASE SYSTEM.

Government assistance given directly or through co-operative societies created *ad hoc*—and not through ordinary primary societies—should be widely offered to supply the workers with tools and plants on the hire-purchase system. Special efforts should be made to introduce in this way the use of improved tools and implements. From the readiness with which improved tools have been adopted in some small industries, especially in urban areas, it seems that the conservatism of the workers is not so strong as is ordinarily supposed. In this matter they work with several handicaps. Often the price

of improved tools and plants is beyond their means. More frequently they are ignorant of the existence or use or value of such tools, etc. This can be removed by organising peripatetic demonstration bodies who will show the process and the increased output to the workers in their homes. All village agencies of a public or semi-public nature can be utilised for this purpose, although the work of making a contract of sale on the hire-purchase system should be reserved for a special department.

An important reason why improved tools and plants cannot be readily absorbed by village workers and one which has attracted little attention is that no attempt is made to follow up their introduction with shops to repair them. In the beginning repairs will be needed for wrong handling of the instruments. If, for every repair, the tools have to be sent to a distant place, their use must necessarily be restricted to towns or other places where such repairs can be easily undertaken. Therefore, the organisation of spreading the use of such tools must be accompanied by the organisation, by Government if need be, of repairing shops. The latter should also be established on a profitable basis so that these may be taken up later on by private bodies. Such tools are usually simple, and perhaps no special effort need be made to train the mechanics who will undertake such repair

work. But if that be necessary, provision to give such training should be made on a wide scale, say in every town and some important villages.

The hire-purchase system has been very successful in Madras and Mysore. The Mysore rules are considered to be very good. These may be adopted with local modification. Government, through their special department, should be prepared to scrutinise the financial condition and commercial prospect of the workers and the industry, to give advice and examine securities which can be offered, to undertake the purchase and erection of machinery so as to hand over the machinery in good working order, and fully to explain to the workers the methods to handle and keep fit the machinery sold in this way.

Wherever possible the use of power should be encouraged among the workers in cottage industries. There is no reason why in big towns electricity should not be used to work machinery. In suburban areas special facilities for settlement and cheap power should be given to develop cottage industries. Thus special industrial areas in healthy localities outside but near or within easy reach of towns may be developed on the basis of power-driven machinery. This process will very much increase the output and therefore raise

the standard and efficiency of the workers. In such cases town-planning will necessarily be brought in to develop such areas, and therefore healthy conditions assured from the beginning. Thus the problem of slums will be at least partially solved.

Thus we see that Government, in their various departments, will have to perform several functions, upon the efficient discharge of which will depend, to a large extent, the prospect of cottage industries in India. These are mainly: (1) to maintain industrial societies and help them whenever they exist; (2) to offer technical and commercial help whenever needed by such societies or individual workers or bodies of workers; (3) to open industrial schools; (4) to give assistance or undertake the organisation of markets; and (5) to popularise and introduce the use of improved tools and machinery, and help the work by the hire-purchase system. In all these there must be systematic and co-ordinated plan of action on the part of Government. As the Industrial Commission say: "The intimate connection between co-operation and the improvement of agriculture and cottage industries cannot be too strongly emphasised; and the officers who control these three branches of administration must recognise this connection, and develop it by keeping very closely in touch with each

other, if they are to achieve genuine success in the discharge of their duties".*

COUNTERVAILING TARIFF.

Countervailing tariff is a tariff which is imposed on imported articles to protect the home products from unfair foreign competition, and the amount of which is equal to the unfair advantages received by the imported articles in the country of their origin. This unfairness usually arises in either of two cases. In a protectionist country the home produce can be sold at a higher price because of the protective tariff. Thus a commodity may be sold at a higher price within the country and reap extra profit, a portion of which may be utilised in reducing the price of the same commodity when sold in open competition outside the country. Supposing that the cost of production of a commodity is Rs. 10 per unit, and that the protective tariff raises the home price to Rs. 15, if an equal amount be produced for home and foreign markets, the producer can charge Rs. 15 at home and any price between Rs. 5 and Rs. 10 outside. This he will do to capture the foreign market or to kill a rival there. Apart from the question of protection, even to maintain fair trade, the foreign country should impose upon the article

* Report of the Indian Industrial Commission, page 203.

an import duty the amount of which will be the difference between the price at which it is sold in the country of its origin and the price at which it is sold for export to the foreign country. Strictly speaking, it will be more fair for the latter to regulate its import duty by the difference between the export price and the cost of production of the commodity in the country of its origin. But cost of production is difficult to ascertain for a foreign country. Also this latter would not affect the extra profit reaped by the imported article at home, which will give it great encouragement and enable its output to increase. Moreover, the former duty will compel the other country to charge less at home if it wants to sell its articles widely abroad.

The second case of unfairness arises when a bounty is given by the country of origin on the article when it is exported. Here the cost of production of the exported amount of the article is reduced by the amount of the bounty, thus giving the article an unfair advantage in competition, in the foreign market, with similar articles produced in other countries.

The problem of neutralising the effects of a bounty by a countervailing duty is, however, not so easy. A system may conveniently be devised, in which the advantages of a bounty may be retained without creating any ground for complaint on the part of a foreign

country. Suppose that an article is taxed on import at 30 per cent. *ad valorem*, and an excise duty of 15 per cent. is levied on home production. In all cases of excise duties a rebate equal to the amount of the excise duty is allowed on the exported amount of the article. Is this not really a case of bounty on export? But it is not considered as such. The only difference is that, in the latter case, the profit on home consumption is reduced by the excise duty. But if the country be protectionist there will yet remain a substantial profit on home consumption, equal to the difference between the import and excise duties, which will help the industry to develop rapidly to cater for foreign markets. This will be so especially in the beginning when the proportion of export to home consumption is small, so that the extra profit made out of home sale will be large in comparison with the exported amount. The relief to export is to the extent of the excise duty on which rebate is allowed on export; and the direct gain to the industry as a whole is the amount of home consumption multiplied by the difference between the protective and excise duties. If the industry be rapidly developing and be under the operation of the law of increasing return and if great advantages accrue by production on a large scale, the difference between the protective and excise duties may

be raised by raising both but the latter less than the former, so as to enable the industry to face competition in a foreign market, and make extra profit in the home market. Such development for a time will reduce the cost of production and therefore increase the profit on home consumption and reduce the price of the exported quantity. In this way an industry may be induced to sell at cost price in foreign markets and sell at a profit at home. This will ensure a rapid development of the industry if the conditions above referred to exist. It is extremely difficult to neutralise the effect of such advantages which can be given to an industry. Properly speaking, it is neither a case of dumping nor one of bounty as such rebates are universally considered to be legitimate, and allowed wherever there is an excise duty on home production. Nor is it easy to counteract the effects of such rebates without seriously complicating matters with foreign countries.

On a lesser scale is the danger of diverting export under bounty through a neutral channel. A free trading country would be a specially suitable channel. Before the War many German articles, especially hollow ground steel and synthetic dyes, used to come to India through the United Kingdom. It is not difficult to find out such cases. What is difficult is to ascertain the extent of the bounty

or other indirect advantages because the effect is complicated by the introduction of a third country.

Finally, it is obvious that it is wholly to the interest of a country to have bounty-fed or protected foreign goods if these be not produced at home and if there be no facilities for producing them at home. This cheapens the articles for the consumers without emasculating any home industry. The danger of a subsequent rise when the market has been captured is a common factor in all circumstances.

PROTECTIVE TARIFF.*

Lastly, we come to the protective tariff as a means of developing industries. By protective tariff we understand a schedule of duties imposed on commodities in order to discriminate in favour of the products of home industries, so that in the home market the latter may be in a better position artificially secured than similar products imported from foreign countries. Such a duty may be either on the export of raw materials which are required for home industries or on the imports of finished products from foreign countries. The imposition of a protective duty must raise the price of the product

* Vide *infra* Chapter VII.

at home or reduce its cost. If it does not do so it fails in its objective, for the purpose of such a duty is to impose a burden on imported articles or confer a special benefit upon home products. When it is on import the effect is to raise the price of foreign articles so as to enable the home product to be sold at a higher price. This price which is artificially created gives a wider scope than before to the home industry which is sought to be protected. This difference is the special help given to the industry to make up for its high cost in the beginning. There is no doubt that this is a loss to the consumers but the supporters of the protective tariff urge that this burden is only temporary inasmuch as the industry will, under this special fostering, develop rapidly and will bring down the price to a lower level than before. So long as there is this duty the consumers must suffer. As it can never be the interest of a country to develop by this means a subsidiary industry or one of secondary importance, it follows that the industries which are chosen for protection must be such that their products are widely consumed within the country or are essentially required for other industries, the products of which are so consumed. In any case a rise in the price of such commodities must inevitably affect the general body of consumers. This means that the masses will be affected. If this be conceded, the

question immediately arises whether such a measure which affects the poor people should be lightly adopted for India. If we compare the income per head of the population of India with that of the protectionist countries of the world, we find that as against Rs. 50 in India, in the United States it is about Rs. 600, in pre-war Germany about Rs. 450, and in Japan more than Rs. 200. It is, therefore, evident that the capacity of the Indian consumers to pay an extra sum in the form of higher price for the luxury of developing industries in India is much less than the capacity, for the same purpose, of the consumers in the United States, Germany, or Japan. Therefore, an extra burden of responsibility lies with those who advocate the adoption of the protective tariff for the purpose of developing Indian industries, especially when we have the other methods of encouraging the growth of industries of India, which have not been tried properly.

There is an additional danger of combinations of particular industrialists when the area of competition is limited by the imposition of a protective tariff. In other countries this danger has developed into a formidable one, threatening evils to the nation on a gigantic scale. Such combinations are only the natural result of such limitations under profitable circumstances, if the commodity be one which

encourages the establishment of mass production of commodities of wide general consumption. The producers will find that they are small in number when there is a protective duty, and that if they compete among themselves and try to undersell one another, it involves fierce competition within the country, but if they combine and regulate their prices, they can push up their prices to the full extent of the protective tariff, whereas under competition their prices will be lower and therefore a portion of the realisable profit would go to the consumers in the form of diminished prices. Therefore, the incentive to combination becomes great. Moreover, when such producers are necessarily shrewd men of business and wide culture, common action leading to combination becomes irresistible. This danger is one which widely affects the whole country and tends to perpetuate itself in future at the cost both of the country and of intending producers in future.

In the case of some important commodities India already enjoys superior advantages as to men and materials. Many of India's exports consist of raw materials, and the imports consist, in some cases, of finished products of the same exported materials. In such cases an Indian producer selling for the home market gets a two-fold advantage. One is the saving of the double freight and other

incidental expenses of transporting to and from a foreign country, and the other is the cheap labour in India. For example, raw hides and skins and the tanning materials used to be exported in large quantities before the war while finished goods in the form of leather articles, produced out of the exported materials, used to be imported also in large quantities. During the War the position changed owing to the impossibility of getting imported goods.

In some cases the effects of the protective tariff may be to cover and perpetuate inefficiency of the home producer. The danger to the consumer in such cases is very great, for not only will he have to pay a high price for inefficient production at home but the producers may not improve at all and in extreme cases may even degenerate when the stimulus under competition is removed or considerably limited by the imposition of a tariff. In such cases almost certainly and in ordinary cases very probably, strong vested interests will arise which, as in the United States, may attempt at political or judicial corruption. This danger is inherent in a system like this, especially when as in India the limited market, although very wide, must necessarily have only a few competitors in the beginning. If such combinations actually arise as they have arisen in the United States and Germany, the most im-

portant protectionist countries of the world, not only will Indian consumers derive no benefit, but additional evils will be introduced where none exist now.

It has been argued with considerable force that no country can develop industrially unless it has at least the key industries, that is, those industries, the finished products of which form the raw materials of a larger number of other industries. In such cases it is argued that a protective tariff is not only justified but essential. This argument is specious inasmuch as an import duty on the products of key industries, by raising their prices, will inevitably raise the cost of production of all other industries. Thus the main object, namely, to develop other industries, will be frustrated so long as the key industries are protected by a tariff. A much better course, although not devoid of evils, would be to encourage the key industries by having recourse to subsidy from the State. Other forms of protection should be tried before a tariff is granted. With a subsidy the loss of Government over these industries would be more than made up by the gain of the dependent industries.*

Frequently analogies are drawn from the acceptance of the protective tariff by other

* Vide *infra* Chapter VII (1).

countries, especially Germany, Japan, and the United States. On close examination it will be found that in most cases such analogies are spurious, as it is often said that the industrial progress of those countries is mainly due to the protective tariff. But in reality in those countries we find that the progress of mechanical inventions is very much greater than in India. Technical skill and business management are more widely and systematically diffused in all those countries than they are in India. The concentration of capital and the consequent organisation on a huge scale gives much better scope to the industrial organisers than similar industries on a smaller scale can give in India. Banking facilities are also very much greater in those countries than in India. We have not here any thing like the Grossbanken of Germany, the special function of which is to study the resources of the country and to keep themselves in touch with all sorts of industrialists to finance them whenever there is any probability of success; nor have we any institution like the Nippon Kogyo Ginko of Japan or the British Trade Corporation of the United Kingdom. Further, the commercial organisation within the country and in important foreign centres to organise on a large scale the marketing of the products of industries has created a regular channel through which the output of the industries of

those countries can flow to different markets. Such advantages contribute a good deal towards the development of industries in a country. But in India there is a large volume of opinion which attributes the industrial progress of the advanced countries only to the protective tariff. That such a tariff plays a comparatively small part is proved by the admissions of economic experts even of the protected countries, *e.g.*, Bass and Moulton in the United States. The evil effects of the protective tariff are recognised there. Its anti-Trust laws show that it is alive to the danger from big combinations. The absurd laws, as pointed out by Clarke,* attempt to fight the octopus of its own creation. Powerful vested interests have sprung up which elude the operation of the law as easily as they tyrannise over the home consumers. Attempt to bribe the judiciary and to contest and put up their own supporters in the legislature has developed into a serious menace to the country as a whole. In the case of many commodities protection is retained where no protection is at all needed for the development of the industries. The position of American steel and petroleum; of German dye, steel, and sugar; of Japanese glassware, toys, matches, and cotton goods; and of Indian coarse cotton, jute, woollen goods, tea, and leather goods is

* The Trust Problem. Vide also *infra* Chapter VII (3).

such in the world market that they need no protection whatever. Yet in the three first countries the articles mentioned are protected by a high tariff which cannot be withdrawn even when the original object of developing those industries has been fully achieved.

When once a tariff is imposed for purposes of protection it is extremely difficult to take it off for another reason. Development of industrial processes, plants, and machinery is continuously going on. Thus an industry which comes under the tariff may start with the latest improvements but owing to want of competition the stimulus to further progress is not great. The tendency then is to be more conservative in adopting innovations than similar industries under competition in other parts of the world. Therefore, at the end of a certain period, when it is proposed to withdraw the protective tariff, it finds that it cannot compete openly with other industries because the latter have progressed more than it has done. Therefore, it naturally clamours for further protection. It is evident that mere protection, unaccompanied by strenuous competition within the country and special arrangement for scientific and technical improvements, is never likely to make an industry as efficient as similar industries in other countries. Thus the policy of a protective tariff of universal application is bound to

defeat its own ends. The circumstances of each industry will have to be studied by themselves, and special encouragement in every form; whether an assured market in the purchase of Government stores or facilities in land, credit, and transport, or direct financial help, should be tried before a protective tariff is levied. Such a tariff is the worst form of protection for a poor country like India where the people are, according to the very supporters of the protective tariff, unable to pay a few pice by way of higher price for salt. When it is decided to give encouragement in any form we should be sure that the particular industry satisfies the following conditions :*

- (1) That it is either a key industry or one which is otherwise considered to be very useful to the country.
- (2) That it is likely to develop along the line of the law of increasing return, that is, the cost of production per unit is likely to diminish with a proper combination of the factors of production.
- (3) That when the size of the business unit increases it is accompanied by a fall in the cost per unit of production, that is, the advantages of large scale production should accrue.

* From the author's written evidence to the Indian Fiscal Commission.

- (4) That improvements are likely to make it as efficient as it is in other countries, so that encouragement by the State will be assured during its infancy only and not while it may be decaying.
- (5) That there is a big home market for buying raw materials and other necessary things to work up the raw materials as also for selling the finished goods on a large scale. This latter condition should be present at least in the beginning.

When these conditions are overwhelmingly present in the case of an industry and yet when the forms of encouragement adumbrated in this chapter are not sufficient to develop it, then only should one think of a tariff. But we go by the wrong door, and, without realising the full effects on the already over-burdened consumers, think of imposing fresh taxes in the form of a tariff even when we are not sure whether or not the points are very much in favour of the eventual success of the industry.

CHAPTER VII.

PROTECTIVE TARIFF: SOME FALLACIES.

In this chapter we shall deal with some common fallacies current in India with regard to the protective tariff. It is necessary to examine them because some of them are, in some quarters, accepted almost as axioms. In any case they are so widely accepted as articles of popular belief that the real case for the tariff is only injured by its being mixed up with them.

(1) KEY INDUSTRIES.

It is held by some that the protective tariff is the only means of developing the key industries of India, that is, those industries which are vitally necessary for the development of other industries. We may here distinguish these from the dependent industries, that is, those industries which use the products of the key industries as their raw materials. Key industries will include the industries to produce coal, petroleum, iron and steel, chemicals, dyes, glass insulators, some leather goods, etc. It is no doubt true that no country can ever hope to be industrially efficient unless its key industries are developed, that is, unless basic commodities are produced within the country.

If any country is without the resources necessary for these industries, it can never develop its dependent industries so well by importing the products of the key industries from outside. Fortunately the economic resources of India are rich in most of the materials for the development of these industries.

The question, therefore, is how to stimulate their growth. A general impression prevails that the protective tariff is the only efficacious means for this purpose. At any rate this is the suggestion with regard to an important key industry of India, viz., the iron and steel industry.* But not only is the tariff not suitable for such industries, but there cannot be any better means of inflicting greater harm to those industries, to the dependent industries, and to the country at large. The importance

* Report of the Committee of Members of the Indian Legislature, appointed to consider what steps should be taken by the Government of India to encourage the establishment of the necessary industries, so that as large an amount as possible of the Rs. 150 crores proposed to be set aside for the rehabilitation of the railways during the next five years be spent in India, and, further, to advise the Government of India in regard to the revision of the Indian Stores Rules: April, 1923. Vide especially the joint note by the minority.

Also Report of the Indian Fiscal Commission, paragraph 59: "The question of extending protection to the manufacture of steel should be one of the first subjects for enquiry by the Tariff Board." But vide also paragraph 99.

of the key industries lies in the fact that their products are essentials for other kinds of products which confer greater benefits upon the country. Therefore, if a high import tariff be imposed upon these products, their price will rise in India to the full extent of the tariff, unless the rate of the tariff has been too high and, therefore, allows some reduction in the price by internal competition. This naturally would raise the cost of production of all the dependent industries. As these latter are the main producers of consumption articles, there would tend to be a general rise in the prices of most articles of consumption. This must lead to reduced consumption, which must make the dependent industries less able to buy the same quantity from the key industries at higher prices. If it be argued that the key industries should be first developed and that we should turn after achieving this to the development of the dependent industries, that also is ineffective inasmuch as the key industries can never develop so long as the dependent industries do not buy their products. In fact, the greater the supposed stimulus given to the key industries in the form of a high tariff, that is, the higher the tariff, the greater will be the rise in the price of these articles and the greater will be the inability of the dependent industries to provide a market for them. Thus it is a suicidal policy to impose a tariff to develop

the key industries. Some means must be devised by which the key and the dependent industries will be reconciled in their interests, and grow together. Such a device is not difficult to find if the key industries selected be really key industries, that is, industries whose development either means the development of many dependent industries which produce articles of general consumption and thus confer great benefits upon the country as a whole, or whose development means the production directly of commodities, *e.g.*, of railway locomotives, wagons, etc., which are of great utility to the country.

The total benefit of a commodity to the country consists of the gains of both the consumers and the producers. The greater the consumption of an article, the wider the classes by whom it is consumed, and the greater the amount consumed by each individual or group of individuals within the country, the greater will be the gain which the consumers will derive from that commodity. The reason is to be found in the principle of consumers' surplus. Therefore, if our choice of the key industries be right, they will affect widely the consumers of a large number of important dependent industries, so that the total gain of the consumers will be greater with greater use of the products of the key industries at comparatively low prices. Thus the solution of

the problem of developing the key industries without injuring the dependent industries and therefore the community in general and ultimately the key industries themselves, lies in the latter's development without any substantial increase in their prices. If such industries require protection it means that of the two items which make up the total gain to the country, one, viz., the gain of the consumers, is a positive figure, while the other, viz., the gain of the producers, is a negative figure, that is, it is a net loss to the producers. If such industries are properly chosen, that is, those which are useful and likely to succeed, it means that the gain of the consumers will be very great and that the loss of the producers will be comparatively very small. In such circumstances the interests of these key industries, their dependent industries, and of the direct or indirect consumers of the products of both can be reconciled by taxing the consumers in order to pay a subsidy to the key industries. This will convert the loss of the producers in the key industries into a gain. This will lower the price of their products at the same time that the key industries will develop as effectively as with a tariff. Thus the progress of the dependent industries will be rapid with lower cost of production even when the key industries will be in the process of development. The con-

sumers will also gain inasmuch as the tax which they will pay by way of direct subsidy to the key industries will be more than compensated by their gain as consumers owing to the development of the dependent industries, that is, there will be a net gain to them to the extent of the difference between the positive consumers' surplus and the negative producers' surplus, *i.e.*, loss. This seems to be the only way out of the difficulty. In such cases the tariff will not develop the key industries, for the rise in the prices of their products will reduce their market; it will hamper the development of the dependent industries, for the rise in their cost of production will put them at a disadvantage; and it will injure the consumers since they will be paying a higher price for the products of both without much chance of developing either. .

It may be argued that somehow the consumers will be paying for the cost, whether by the tax for the subsidy or by higher prices as a result of the import tariff. But usually people are unwilling to pay higher prices. Also the burden may be more equitably distributed in the former case by a good tax which always presses or ought to press much less heavily upon the poorer than on the richer classes of the country. In the case of subsidy the manner of having it may be by loans rather than by tax.

(2) INDISCRIMINATE USE OF THE PROTECTIVE
TARIFF.

A second fallacy with regard to the protective tariff is that, in order to create an atmosphere of intense industrial activity, we should start with the imposition of the tariff on all sorts and varieties of articles.* There could be no better means of discrediting the tariff itself as a means of developing any industry whatsoever in India. There is no doubt that the imposition of the tariff means loss to the consumers. This loss is accepted for a time so that the industries concerned will develop and after that their cost of production will fall, to the advantage of both the consumers and the producers. The consumers will then be paying the ordinary prices and the industry will be able to compete with similar foreign industries. Thus for the policy of the protective tariff to be successful, it is necessary that the industries chosen for protection are such that they will develop within a reasonable period. Development of industries *per se* is not a desirable object to be pursued at any cost. We want that in order to benefit our own consumers and producers. As the consumers of the products of an industry are always greater in number than the producers, and as the pro-

* Vide Oral Evidence before the Indian Fiscal Commission, 1921-22.

ducers in a manufacturing industry in India are and will be, for a long time to come, very much less than the consumers the latter's interests cannot be indiscriminately sacrificed, for that of the producers in the name of real good of the country. If the industries protected be properly chosen, they will necessarily be those the products of which are widely consumed. Thus their high price will inflict a loss upon the general body of the consumers. This loss cannot be so lightly undertaken merely for the fad of developing our industries without any reference to the loss of the consumers, especially when the country is so poor. Otherwise the goal, viz., conferring a great benefit upon the country, will be sacrificed for the means, viz., developing industries. Economic self-sufficiency with regard to all items of a country's consumption is not at all a desirable end, just as similar economic self-sufficiency of an individual is not at all desirable. Then as a country or as individuals we shall all be reduced to Robinson Crusoes, and all the benefits of the organised life of modern civilisation will have to be given up.

Again, an indiscriminate policy of imposing the protective tariff will inevitably raise the general cost of living since so many articles will be affected. The prices of all the articles which are subject of foreign trade will directly rise, while such a rise in a large

number of articles will lead to a sympathetic rise, though to a less extent, in the prices of the other articles. There is no doubt that the country will suffer very much. Probably no country in the world; not even the richest, and least of all India, can bear such a burden. Is it prudent to go in for such abnormally heavy burden without first ascertaining whether the sacrifice will be compensated by the subsequent gain? Moreover, such a general rise in the prices of all articles can have either of two results. Either the people will be reduced in number in accordance with the Malthusian theory of population, which cannot be so directly done without grave complications, or they must reduce their standard of consumption and thereby lower their efficiency. In India as we all know the latter will happen as it has happened among the middle class during the last decade or more. Is it desirable? Enthusiasts will say that at present we consume many unnecessary things which do not increase our efficiency and even some which diminish that, so that a re-distribution of the items of consumption will prevent the falling off in the efficiency. But it is futile to chafe at such things inasmuch as such wastage must remain even in the best countries so long as man is what he is and is not converted into an automaton. Education helps to a certain extent, but it is not certain whether education

helps much from this point of view as will be evident from a comparison of the requirements of an educated with those of an uneducated man from the strict point of view of economic usefulness.

When the general body of consumers is in such reduced circumstances their demand must fall. This will result in a decrease in the articles of consumption. Apart from its effects upon the efficiency or general well-being of the community at large, such a situation is not likely to foster the growth of industries nor indeed an atmosphere for that desirable consummation. Even those industries which normally have a chance of success will be put at a disadvantage. Those which have little chance will go down quickly. This combined with a condition of general distress among the consumers and a widespread failure of the tariff to develop all the industries of the country by means of the indiscriminate tariff is sure to discredit the tariff itself as a means of developing any Indian industries. Even without this situation the case for the tariff is not very strong.* An indiscriminate policy like the one advocated will only smash what position it has now. Also looking to precedents in other countries which are protectionists, we do not anywhere find any such policy being pursued. In Japan, Germany, the United States,

* Vide *supra* Chapter VI.

etc., possibilities of the development of an industry are first explored. In most cases the industry is actually started and when it is actually seen that the competition with foreign products has become severe and dangerous for that industry, then only is the tariff allowed.

It may be argued that the position of the consumers will not be worse than what it is now if there be a rise in prices as a result of the indiscriminate use of the tariff inasmuch as they will be benefited as producers.* This is partially true, but specious to a large extent. If the rate of the tariff be higher than what is just necessary to develop the industry at the present cost of production, that is, if it be higher than what is necessary to protect it from foreign competition, then it will be extravagant and therefore inflict a greater loss upon the country than what is necessary to develop the industry, and this will be at the cost of the consumers for the benefit of the few owners of the industry. If the rate be, as it should be, just sufficient to develop the industry, the income of the producers cannot rise very much. The income specially of the general body of

* This is the argument which has been used by the British Premier in November, 1923, in favour of the protective tariff, viz., that it will be a relief to unemployment in the United Kingdom. The argument is not new but re-appears from time to time, and, with this political support, is likely to gain force in India.

the producers, that is, the working classes in manufacturing industries cannot rise in this way. If it does it means an increase in the cost of production which means the necessity of an enhanced tariff to protect the industry with this additional cost of production. Thus we shall be in a vicious circle. The imposition of the tariff just sufficient for the industries to develop raises prices; this raises wages; this raises the cost of production; this makes the old just-sufficient tariff insufficient now. Raise the tariff now and the circle re-starts. The circle, therefore, must be broken somewhere, and it is naturally broken at its weakest point. The weak labourers are not granted an increase in their wages commensurate with the increase in the cost of living (at least for the short period) nor are the supplies of raw materials given increased prices commensurate with the increase in their cost of living. Thus there must be economic degeneration at some not very desirable points.

The above case is argued on the hypothesis that all the consumers of the country are also producers in the protected industries. But this cannot really be so, even in an industrial country. There are many industries in all countries which have little to do with foreign trade and therefore with the tariff

and its direct results. They will have little benefit.

For India another important point is effective in this connection. Agriculture is not usually included in our discussions regarding the tariff except when we think of an export duty on agricultural raw materials.* This is so because agriculture is not a manufacturing industry, and the present rage is for the latter only. Seventy-two per cent. of the population are directly engaged in agriculture in India, and more are dependent on its profits. Some others pursue other small industries which will also be hit if there be, as is attempted by the indiscriminate protectionists, a very rapid displacement by manufacturing industries. These people, and their number is in crores, will fall, as they have gradually done during the last half a century, upon agriculture; some of course will be diverted to the factories.† Therefore, the importance of agriculture in the national economy of India is very great both as an occupation and also as the effective reserve to fall back upon. With an indiscriminate use of the tariff the effect on the agriculturists will be that they will have to pay higher prices for all the articles which they will buy. But if they charge higher prices for their products, then we fall at once into the

* Vide *infra* section (6).

† Census of India Report, 1921.

vicious circle. The cost of production of the industries rises with a rise in the prices of agricultural products whether used as raw materials or as foodstuffs for the factory workers; this necessitates a rise in the just-sufficient tariff. If the tariff be raised the circle re-starts. So, the agriculturists must not raise the price of their products although the prices which they will have to pay for their purchases will rise. Indeed, the suggestion in many quarters is that agricultural raw materials should be cheapened by imposing export duties on them in order to develop the manufacturing industries in India. But what becomes of more than three-fourths of the population who must pay higher prices for their purchases and get lower prices for their own products? And does the country as a whole gain when such a huge number suffers? If so, who consist of the country?

It will be apparent that the above objections to the indiscriminate tariff apply to any protective tariff. The only difference in favour of a cautious policy is that in the latter case the harmful effects are reduced by the number of articles affected which must be small, and by the expectation that the high price in each case will be paid for the success of the industry within a reasonable time, while in the former case none of these redeeming features appears.

(3) INDUSTRIAL COMBINATIONS.

Many people seem to think that the protective tariff can be very widely used without creating strong vested interests and fostering industrial combinations. The tariff is spoken of as if it can be imposed, altered, and withdrawn at pleasure, and as if the political instruments always reflect the opinions and interests of the people of the country, and effectively give expression to them through the legislature and the other organs of Government. Theoretically this seems to be so. But in practice there has not been any case in any protectionist country in which the tariff has been removed or even lowered during the prosperous condition of the protected industries. Normally an industry is protected the products of which are widely consumed because this makes that industry useful to the country generally. The industry in all cases is a manufacturing industry. Thus production in the protected industries is mostly on a large scale, turning out standardised articles of general consumption. The leaders of such an industry are all shrewd men of business who will avail themselves of the circumstances whenever they find these in their favour. With the tariff there is little competition from outside. But within the country competition still remains. This means that the firms with-

in the country have either of two courses open to them. They may compete among themselves and try to undercut one another, or they may combine with one another and form a monopolistic body. In the initial stages there is little need for this combination. If the tariff has been prudently fixed, it is likely to lease to the firms just more than normal profit to run them. But some people urge that a high profit should be guaranteed to the industry in order to develop it rapidly. Combination comes gradually in the former case, and rapidly in the latter. In the former case, that is, when the tariff is moderate or just sufficient to develop the industry, the profit, in the initial stage, is not very high. But if the tariff be not retrogressive from the beginning, in time as the industry develops its profits also increase. From such time in this case and from the beginning in the case of a high tariff, internal competition will reduce the profit of the competing firms by a reduction in the price. This is always for the benefit of the consumers. In fact, this is what everybody wants to have in the long run. But the consumers are disorganised whereas the firms are few in number and know their business well; in India the number will be particularly small. If they compete among themselves they get only normal profits. If they combine they can keep up the price at the full height per-

mitted by the tariff. With such combination the leaders of the industry become powerful and can wield influence quite beyond their legitimate sphere. In the United States they wield great political power. In modern democracies power is held by political demagogues, using that word in its best sense, and the recognised principle is fostering of class interests so as to balance them all in the legislature. Therefore, there is no stigma if one attempts to thrust the interest of his class before all other ordinary considerations. Another important factor is the great expense of electioneering campaigns, most of which depend for their success upon the length of the purse commanded by the party setting up the candidates. Both these help the cause of the industrial magnates in their venture into the political arena with the one aim of securing or fostering their own economic interests as distinguished from or as contrasted with those of the country as a whole.

It has been said that in India combinations of this type will be disallowed, and the evils of monopolies obviated by the lessons derived from the experience of other countries. It is futile to expect that India's new-born or unborn, probably still-born, democracy will achieve what the full grown democracies of the West have failed to do. The measures which are likely to eliminate those evils which

exist in the West have not yet been discovered and explained by the protectionist enthusiasts of India. In the West two methods have been tried, viz., monopoly has been declared illegal, and the protective tariff has been declared to be for the infant industries only. Both of them have failed in the West. Time after time drastic laws have been framed to suppress combinations but they have successfully eluded the grasp of the law. Thus the Standard Oil Company, the ideal Trust, which had been organised as a combination in the eighties of the last century, was sought to be suppressed. It evaded the law and became a Pool. The next attempt of the law converted it into a Trust. Persecuted as a Trust it became a Community of Interest, a change only in form and name to evade the law, but really a closer union. The last onslaught of the law saw it yet evading the law and a still better organised body as a Holding Corporation, a sort of mobile combination, the combination part of which is the reality and the mobile part of which is to befool the law. In 1910 by a judicial decree it was dissolved. Legally it stands dissolved even now and is no longer one body. But for purposes of business it is as much one body as the physical body of any living organism. In 1922 it made an unprecedented profit when the United States was undergoing an acute industrial depression. Its example has been widely

followed by other Trusts with good success in their respective spheres. In this struggle the most pernicious feature is the successful attempt at corruption of the judiciary and the executive.

The latter form of corruption is possible because the combinations wield great political influence, and the executive cannot always afford to enforce the law against the combinations which in the legislature are their masters. They spend huge sums of money to put up candidates for election in the legislature. This is partly helped by the party organisation in the political system of the United States where votes are first recorded by parties and the nominees of the parties are put up *en bloc* as candidates. Such party organisations are highly expensive, and as the code of private morality does not apply to the public life of those countries, there is no scruple in making terms with rich corporations in framing the programmes of the parties. Such party organisations make matters easy for the combinations inasmuch as the most effective political machinery is concentrated and all-powerful, and is controlled by a few professional politicians. Thus is formed an unholy alliance between the latter and the industrial magnates for the exploitation of the general body of the people with the help of their own votes. With such powers in the legislature it

is not difficult to gain over or bribe the executive. Thus although in principle the protective tariff is meant only for the infant industries, the grown up ones, especially the stronger ones, hold a greater share of the advantages. The steel and petroleum industries of the United States are models for the whole world, and, by no stretch of the imagination, can be called infant or struggling industries. Yet they are protected by a high tariff which cannot be taken off. Further, in September 1922 the general rates of the tariff were again raised when world production was yet disorganised and when the Allied debts to the United States required that some goods should flow into America to pay the interest charge. Within the country the price is always kept up as high as the tariff would permit, and outside in foreign markets the goods are dumped, and fierce competition is started by which the Asiatic and African peoples are made pawns in the industrial and commercial rivalry of the Western countries.

To the present writer it seems that such combinations cannot be prevented from growing in a country which adopts the protective tariff; and the evil is only intensified by the attempt to suppress wholesale all combinations. In many respects they are so clearly the product of the modern industrial system that they cannot be suppressed. The attempt

should, therefore, be made to minimise the evils when they appear and create unfavourable conditions for them before they grow. According to a distinguished American economist* the possibilities of good in the combinations are worth preserving, although he condemns very strongly the vices of the system. The measures which he suggests to deal with monopolies are to control them by inspection, publicity, and some control over unreasonable prices. To the present writer it appears that such control will be only partially effective so long as the combinations can control the legislature, bribe or overawe the executive, and corrupt the judiciary. Subject to this they are good remedies so far as they go. On the principle that prevention is better than cure such combinations as are not the product of natural causes, *e.g.*, the size of the business unit as a result of large scale production and use of specialised skill and plants, should be discouraged from being organised. We shall suggest three other methods. All these along with the measures suggested above for the United States should be used in India to make their joint effect appreciable. The first is to use the protective tariff in as few cases as possible. If the alternative is between development of industries and combinations on the one hand, and industrial backwardness without combina-

* Clarke—The Trust Problem.

tions on the other, we should be inclined to support the latter because the consumers in this case do not pay higher prices for the evil of maintaining the octopus which saps their life-blood. The second method is to lay down a principle to be rigidly followed, according to which all protective tariffs should be definitely limited in time, after which they will automatically cease, and during which they will be retrogressive, the rate of retrogression being according to the expected rate of development of the industries concerned. A probable danger here is to go to the other extreme and foil what is attempted to be done with the help of the protective tariff. By these means combinations can be made innocuous to some extent. But if they once grow powerful as they have done in other countries in spite of more drastic efforts to suppress them, these remedies will decline in effectiveness inasmuch as the influence of the monopolies may preponderate in the legislature which is to take all decisions. The third method is to tax the monopoly incomes very heavily. This is really no remedy but relieves the burdened consumers by making the monopolies pay towards the expenses of the Government which otherwise would fall upon the consumers. Of all the above measures the best is to taboo the protective tariff and, in cases where it is granted, it should come as an exceptional case and as a

necessary evil. The danger will be considerably minimised if it be so rare that large combinations in several important industries are not fostered by it.

(4) DIVERSITY OF INDUSTRIES AS A REMEDY FOR FAMINES.

An important argument in support of the protective tariff, which has been advanced by some economists of reputation, is that the tariff fosters many industries and that diversity of industries will operate as a remedy for Indian famines. They mean that now the people of India depend mostly upon agriculture and a failure of the crops puts them out of employment. If there were many industries, then when agriculture fails they will be absorbed and temporarily employed in other industries. At present they suffer acutely because there are no such industries to give them employment. This argument is wholly fallacious. All manufacturing industries ultimately depend upon agricultural products if only in the matter food products. If there is a failure of harvest the supply of raw materials of most industries is curtailed, and their prices rise. In such circumstances these industries suffer directly. Other industries, especially the key industries, which do not depend upon agricultural products as their raw materials, such as iron and steel, coal, petroleum, chemicals, glassware, etc.

will also suffer at the same time because the dependent industries will not be able to buy as freely as before owing to the rise in their cost of production as a result of the failure of harvest. All industries, key and dependent, suffer as a result of the high prices of foodstuffs, which are the result of the crop failure and which affect their labourers. In such circumstances a state of industrial depression will prevail in most industries as the demand for their products at this higher cost diminishes even when the demand schedule remains constant.

But the demand schedule cannot remain constant inasmuch as the purchasing power of those who depend upon land as also of those whose money income remains the same while prices are soaring higher will diminish considerably. A further depression in the demand for ordinary articles of consumption is likely to result in India where the food expenses form a high percentage of the total expenses of the majority of the people. This is so in the case of all poor people.* Therefore consumers will economise more in the use of other articles in order to pay higher prices for foodstuffs than they would have done for the rise in the price of the former only. Hence there will be a considerable reduction in the demand for the products of all industries.

The situation then will be that the cost of production of the industries will rise, and the

demand even at the old price will fall as a result of the high prices of foodstuffs. Both these factors operate in the same direction to depress the industries. With higher cost of production and lower demand for their output the industries, instead of being able to absorb the agricultural population to give them temporary employment in times of famine, will release some of their labourers to reduce their output in order to get over the period of depression. This condition of depression will react on other industries which do not directly depend upon agricultural products for their raw materials. Thus the purchasing power of the people is reduced. That of the ordinary industries also is reduced. This will affect the other industries, *e.g.*, coal, steel, leather goods, dyes, chemicals, etc.

Thus we find that diversity of industries is no remedy for famines. The only solution of this problem is to find remedies for the failure of harvest. In India it is ordinarily due to deficiency in rainfall, and provisions should be made to supplement rain-water by irrigation.*

Even if diversity of industries were a remedy for the distress following upon the wake of famine it would not prove the necessity for the protective tariff. It would only prove the need for developing industries. This

* Vide *supra* Chapter I.

can be done by various methods, of which the tariff is one and not the best one at that.*

Another argument urged in favour of the protective tariff is that agriculture makes those engaged in it conservative, fatalist, inert, and culturally backward, and that therefore industries should be developed if a country is to progress along these lines of development of culture and national character. The argument is not economic and it is not desirable that a discussion of such questions should be raised here. Nor is it necessary to enter here into a discussion of the truth or otherwise of the allegations made against agriculture. Even assuming them to be true this proves only the case for the development of industries in India, and not that of the use of the protective tariff. All arguments for and against other forms of protection and the protective tariff remain intact, and the particular means which are to be used to develop industries cannot be determined on this argument. Therefore, as between the tariff and other means of developing industries, this argument is absolutely irrelevant.

(5) PROTECTIVE AND REVENUE TARIFFS.

In some quarters there prevails an idea that India's tariff should be framed so as to

* Vide *supra* Chapter VI.

be both protective and yielding a large revenue. If by this be meant that, of the whole tariff, some rates will be for revenue and some for protecting industries, no objection can be taken. But usually it is meant that the same rate should both protect an industry and yield a large revenue. In this sense the statement is wrong. This can be proved in a few words. The object of the protective tariff is to raise the internal price in order to shut out the foreign product from the home market. The object of a revenue tariff is to allow as much of imports as possible and make them pay a certain rate. If the one be effective the other will necessarily be defeated. Within a certain zone it may be that a comparatively high tariff yields a large revenue. That zone is where the tariff is not the most efficient either for revenue or for protection. To the extent that it approaches the protective tariff it loses its value as a revenue tariff. To the extent that it approaches the revenue tariff it loses its value as a protective measure. The principles of the two tariffs are contradictory. If a protective tariff is yielding a large revenue it proves that the tariff is not sufficiently high to shut out foreign competition. To that extent the protection afforded to home industries must be said to have failed. Therefore, the supporters of a wide net of protective tariffs, should

be prepared to sacrifice the present revenue which India gets from its customs tariff. In the United States the revenue received from the protective part of the customs tariff is only one-eighth of the total revenue from all such duties. This is a practical point which the supporters of an indiscriminate use of the tariff for purposes of protecting Indian industries should specially note.

(6) EXPORT DUTY.

Sometimes it is advocated that an export duty on raw materials, *e.g.*, cotton, oilseeds, etc., should be levied to cheapen the cost of production in Indian manufacturing industries in order to encourage them. This will reduce the price of these raw materials within the country by restricting the marginal export because the price of the articles being thus artificially raised for export, their foreign demand will fall off. But the reduction in home prices will be only temporary inasmuch as the fall in home prices will react on the output of the commodities. The ultimate effect on prices will be determined by the amount of the marginal output at the present time. India is an old country, and in all old countries the proportion of the marginal to the total output is great. If, as a result of the fall in prices, the supply be considerably reduced, then

prices, instead of falling, may rise to a higher point in final response to the export duty.*

Another danger is that the commodity, if it be an agricultural product as most raw materials are, may suffer in competition with other products whose export is not checked by a tariff.* Thus it suffers either way. If its marginal output be great its price is not likely to fall by a reduction in its export. If that be not so it suffers in competition with the rival products of the soil. This may be prevented by a general export tariff on all agricultural products, thereby reducing the income of all persons who depend upon the income from land, that is, more than four-fifths of the total population of India. As the number of the producers in manufacturing industries is very much less than that of the producers in the agricultural industries, and as the former are normally much richer than the latter, the loss to India will be several times more than the gain to the manufacturers. But really speaking there will be no gain to the latter. If the industries are given these facilities in the matter of export tariff only for normal profits, then the manufacturers will not be gaining any special profit at the same time that the producers of the raw materials will be suffering a heavy loss. This loss is to be balanced by the

* The argument has been developed in Chapter IV; *supra*.

gain to the consumers. If the manufactured article be such that it is widely consumed by the rural people in large quantities, then the gain to the consumers can be very great, although the gain may not be properly distributed among the suffering producers. But it should be noted that the consumers' gain to the agricultural classes can never be equal to their loss as producers unless, contrary to facts, we assume that they produce less than they consume the manufactured article thus protected, that is, unless they are perennially bankrupt in their consumption of the products of the protected industries. This net loss to the agricultural classes and those who depend upon the products of land is to be balanced against the net gain to the other classes who gain as consumers but do not suffer any loss on this account because they do not produce the taxed raw materials. Apparently the former are more numerous and less able to stand loss than the latter. Thus the balance seems to be very much against the country as a whole. The above argument assumes that the protected industry flourishes under the export duty and the prosperity is reflected in reduced prices. If prices do not fall either because the industry is not prospering or because of combinations, none of the advantages come to the consumers and the loss to the agriculturists is a net loss

to the country. The value of the gain to a few manufacturers must be considered as negligible from the point of view of the whole country.

Again, there is a third danger. We have seen that the imposition of an export duty upon one agricultural raw material will be futile so long as its rivals are left with a free market for sale. Therefore, to be comprehensive and effective all raw materials must be so taxed. In this case we have seen the balance to be against the country. But there is foreign competition with our goods which are exported. The ability of an article to bear an export duty depends wholly upon its position in the external market. If it has strong rivals in other countries, it will not be able to stand a higher price as a result of the export duty. In such circumstances the foreign demand for our article will be very elastic in the downward movement of the quantity but not in the contrary direction. This is the worst position for a commodity selling in competition. The danger is of losing the foreign market and thereby inflicting greater injury upon its producers and traders than was contemplated in the calculation for gains and losses while imposing the export duty.

The amount of the export duty is an important factor. To be effective as a protec-

tive measure it must be sufficiently high so that the price of the raw material will be so reduced as to bring about a substantial fall in the cost of production of the protected industry and thereby enable it to compete with similar articles of foreign manufacture. But any heavy tariff means danger to the external market of that commodity. At one time saltpetre was considered to be able to bear a heavy duty. This was imposed and we have now lost the trade altogether. Apparently only those of our products in which we have a monopoly of production can be charged substantial export duties. We think that there is no such commodity except jute, which has not got a strong rival in foreign countries. In jute also the duty can be only at a moderate rate. Its extent must be fixed by the comparative difference between jute and other fibres as articles of consumption, that is, such a duty must not raise the price of jute, in the external market, to such an extent as to sweep away the difference in the prices of jute and other fibres, say, cotton, as compared with their respective use as articles of consumption. Even this comparative advantage will remain to jute only so long as jute or a proper substitute is not discovered in other countries, efforts for finding which are now vigorous, especially on the continent of America.

(7) INDUSTRIAL DEVELOPMENT AND
FOREIGN TRADE.

It is often argued that, if there be a rapid development of Indian industries, the present balance of trade will be disturbed, and that this will endanger the gold exchange standard by reducing the surplus of exports over imports. There is no doubt that the foreign trade will, in the beginning, be considerably reduced. But there will be compensation also. India exports a large quantity of raw materials. A good portion of these return as finished goods. Thus with the development of industries, both exports and imports will diminish. This will be especially so in the case of cotton and leather goods, and oils. To take cotton goods as an illustration. We export raw cotton and yarn worth about Rs. 45 crores, and import cotton finished goods and yarn worth almost the same. Making allowance for the increase in the value of finished goods as compared with that of raw cotton, and for the fine piecegoods which cannot be produced now in India, we may say that the whole of the manufactured rough goods which come from Japan now, worth Rs. 16 crores, will disappear, as also half of our export of raw cotton to Japan. It may also be that a portion at least of this export of raw cotton, mainly meant to supply the Chinese market, will be manufac-

tured in India and sent directly to China. This used to be the case till the beginning of the present century. If it be so, then the value of our cotton export, being manufactured goods, will remain practically the same, although the quantity will be about half of that of the present time. There is not space enough for dealing with each item of India's foreign trade, and it is also difficult to prognosticate what will be the result of the development of industries in India. But, generally speaking, it seems that, if India confines itself, in the beginning at least, to the production of those articles, the raw materials of which are abundant here, and the demand for which also is great, then there is the prospect of a greater reduction in the value of our imports than in that of our exports, since, quantity for quantity, the value of raw materials, which form the bulk of our exports, is much less than that of manufactured articles, which form the bulk of our imports.

This means that there will be a greater surplus of exports over imports if the present rate be maintained in international values. And it is upon this that the stability of the gold exchange standard depends. Thus there is no danger to our exchange system. Moreover, this surplus assures the easy payment of what all debtor countries must send to repay

the foreign debt or the interest charge or any other foreign obligation.

Of course this surplus cannot be permanent unless India has to make foreign payments. Nor will there be any need after the foreign obligations are paid off. It is a mistake to suppose that the surplus is created independently of external obligations. This surplus will have either of two effects. The whole of it or a substantial portion of it may be utilised in piling up our reserves in London, against which exchange bills from this side may, when necessary, be drawn on Government account whether to maintain the lower limit of the exchange rate or for making purchases by Government or private bodies, or gold will flow into the country. The effect will be the same in both cases. In normal circumstances this gold is diverted to the money market where it is either made the basis of an inflation of credit or returned to Government in exchange for rupees, which leads to the inflation of the currency. The result is a rise in prices, and this adjusts the balance between exports and imports by restricting the former and facilitating the latter. Thus the equilibrium is restored subject to external obligations. The same will be the effect if the reserve be piled up abroad. The bills drawn on the Government of India will, on presentation, be matured in cash which will swell the

home currency. Such automatic inflation (or deflation in the opposite case of a surplus of imports over exports) is necessary for the adjustment of internal and external price levels. Thus ultimately it means little to the country.*

But the existing balance will no doubt be altered as a result of the development of Indian industries. This unsettlement of the existing relation between the value of our exports and imports will be partially neutralised (1) by, at least in the beginning, a greater demand for machinery, etc., to start or expand our industries; and (2) by every increase in the export of our manufactured and part-manufactured articles, especially those which are of value to other industries, *e.g.*, jute. The prospect of the latter is good, especially in leather goods, jute, and perhaps tea. If stock raising on a large scale be encouraged in India, and if the prejudice—unfortunately only too much emphasised in recent years—against cattle export and cattle slaughter be got over, then the Indian supply of hides and skins will be very large and steady.† Also most of the chemicals, etc., necessary for tanning are available in India. Further, it will take a long, very long, time before leather goods will be considered as a

* Vide *infra* Chapter IX.

† Vide *supra* Chapter IV.

necessity, or even a thing of ordinary comfort, by the general body of the rural population of India, who now use shoes only occasionally, and do not use any other leather goods except on a very limited scale. Moreover, the price of leather goods in the world market is steadily rising, and the sources of supply of leather are not very elastic. All these lead us to suppose that leather goods can be manufactured in India with very great profit in order to supply the external market. If so, then the export of our manufactured leather goods would increase very much, and its value at a proportionately greater rate. The case of jute is not so strong from the point of view of protection, as it is likely to thrive in open competition. Tea is also capable of very great expansion, and just before the present slump, perhaps it was expanding along this line. A detailed study of India's natural resources will probably reveal some other industries similarly situated. Therefore, the disturbance of the existing balance of India's trade is not likely to be so great as would otherwise appear.

It should be distinctly understood that foreign trade as such of a country has little to do with the prosperity or adversity of the people thereof. Some people seem to think that the volume of external trade of a country is an index of the prosperity which that country

enjoys. This is so to a very limited extent and on the supposition that the resources of the country are already being properly utilised. The point has been disposed of in a masterly way by Dr. Marshall.* In modification of his arguments we would only say that, if international trade be really due to the advantages in comparative efficiency, the real excess in the value of imports over that of exports must necessarily be greater than is represented in apparent values. For, unless there are artificial and abnormal conditions, which, we believe, cannot prevail for a long time unless under pressure of extra-economic forces, the apparent value of exports represents a lower real sacrifice, and the apparent value of imports represents a higher real gain, inasmuch as the specialisation in the particular articles within a country must have followed the line of comparatively greater efficiency, including natural efficiency in resources, in running several industries, as compared with the industries of other countries with which India has foreign trade. It should be noted that this comparative efficiency is a relative term depending upon the acquired facility of working the natural resources. With every change in that there is a change in the comparative efficiency. Therefore, the dynamic aspect of

* 'Industry and Trade', Book I, Chapter II.

the question must not be lost sight of while calculating comparative efficiency at a particular stage of the industrial growth of the country. To the extent that there is this discrepancy in the recorded values of foreign trade in terms of real sacrifices in the case of exports and real gains in the case of imports, the recorded values do not accurately represent the real balance of trade. Subject to this the foreign trade of a country is not necessarily a test of either the prosperity or the adversity of the people of that country.

CHAPTER VIII: .

TARIFFS AND THE INDIAN STATES

I.

Under the new Reform scheme India is expected to determine its own destiny. In this connection it may be permitted to discuss a point which has already been raised in some quarters. Most of the Indian States are inland States without any outlet to the sea. But they import, either directly or from the ports, large quantities of foreign goods. These are taxed, for revenue purposes of British India, at the ports of entry. Similarly exports are also taxed. At present all the important ports are in British India, and most of the customs duties go to it. But India's exports are produced and its imports are consumed as well by the people of the Indian States, which form about one-third of India in extent of territory, and more than one-fourth of it in population. Thus, indirectly and almost unconsciously, the Indian States or the people thereof pay some taxes to British India, which are not officially recognised and no account of which is taken in any consideration in that behalf.

It may be objected that these contributions should not be called taxes inasmuch as

they are in the form of prices paid for the goods purchased from British India. It will be argued, for example, that if there be an import duty on a certain American article in France, and if Switzerland comes there to buy it, the latter country should not grudge the payment of the price as it is in France. But the situation changes immediately when Switzerland orders that article directly from America, and yet France charges the regular duty even if it be transported through France without breaking bulk. This is especially so if Switzerland be a country friendly with France as the inland Indian States are with British India, or if Switzerland be guaranteed its military defence by France as it actually is and as the Indian States are guaranteed by British India. If, moreover, these States have already shown their readiness to do away with any internal duty to facilitate free movement of goods of trade between them and British India, as, on the request of the latter, many Central India¹ and other States did between 1880 and 1885, British India may be said to be, in some degree, under a moral obligation to reciprocate the goodwill, and facilitate the import and export of goods to and from the Indian States. Further, if there be a precedent, as in the case of the State of Kashmir and Jammu (1870), of British India contracting for the abolition of the State

transit duties in lieu of a drawback on imported goods 'in bond', British India recognises the justice of the principle, and its moral obligation to do the same for other inland States, especially those which have abolished their transit duties on its initiative, becomes further emphasised.

The above would, of course, apply to goods which are imported directly from foreign countries into these States, or exported directly from the latter to the former. In other words, these goods must not break bulk in British India, but pass through it as goods 'in bond'.

The difficulty of the Indian States consists in the fact that, for revenue purposes, they also have to impose their own import and export duties, commonly known as *sayer*. These put their own goods at a disadvantage in the foreign market, and foreign goods in their own. This means that the producers and the consumers in the Indian States suffer an additional burden on the exportation of their products and importation of their consumption articles. It is rightly presumed that, in future, India would have to look more to customs duties for expanding its revenue than to land revenue. This applies to the Indian States as much as to British India, and the *sayer* of the former is, in this respect, the same as the customs duty of the latter. Deve-

lopment of the natural resources demands as much attention in the Indian States as in British India, and there are reasons to believe that the near future will see a stir and activity all over India, British and non-British. Thus the question of funds and revenue will sorely tax the Indian States, as probably it is doing now, to wit, the financial condition of Mysore during the financial years 1919-1923.

There is another consideration which urges the solution of the question of this tangled finance of British India and the Indian States. "The theoretical free trader, we believe, hardly exists in India at present. As was shown by the debates in the Indian Legislative Council in March 1913, educated Indian opinion ardently desires a tariff. It rightly wishes to find another substantial base than that of the land for Indian revenue, and it turns to a tariff to provide one."* From a study of Indian public opinion during the last few years, it is reasonable to assume that a persistent demand will be made to enhance the tariff in order to protect Indian industries by the imposition of a high tariff. This means that an ever-growing tax will have to be paid by the Indian States for the promotion of industries which may not be within them.

* Vide Report on Indian Constitutional Reforms, paragraph 342.

Demands have been raised in many quarters that heavy import duties should be levied on imports, and Government have consented to do so through the impecunious condition in which they find themselves at the present time. To take only one illustration of this injustice, viz., the case of sugar. If sugar industry be protected by a tariff, the States of Central India and Rajputana will have to pay this high rate, but their soil is not suitable for growing a concentrated crop of sugarcane, which is essential for maintaining the necessary supply of raw materials for a factory with up-to-date plants of sugar crushing.

It will be argued that the Indian States should not grudge this contribution because (1) British India guarantees their integrity, and, therefore, permits them to save their military expenses which would otherwise have been necessary; and (2) an economic unity of India, by thus joining British India and the Indian States, would ultimately benefit the latter. Both the arguments are specious inasmuch as the question of military expenses has been finally settled by the terms of the treaty of each Indian State with British India, and what is due to the latter on this count must be taken to have been settled then. Even if further contribution on this score be demanded, it should be so recognised, and its amount definitely fixed. The economic argument is

also specious inasmuch as the rest of India would not only submit to the taxes by way of protective duties, but would participate in the profits of the tariff; the revenue from customs duties forms part of the income of the Government of India. Moreover, there is no certainty as to the amount of such a duty, or the variety of goods that may be taxed. If the parallel is to be drawn with the late German Zollverein or the Customs Union of the South African States, every participating unit should in fairness be given a portion of the total collection.

Such distribution is not only desirable for the benefit and convenience of both British India and the Indian States but it is feasible as well. By separate commercial treaties various systems have been developed by which fair and equitable distribution of such revenue between two contiguous countries has been secured to the satisfaction of the parties. In particular it may be mentioned that the South African Customs Union formed between 1889 and 1903 divides its customs revenue among the members on the basis of consumption, by each, of the imported commodities. Cape Colony, Natal, and the Orange River Colony, —subsequently joined by British Bechuanaland, Basutoland, and the Bechuanaland Protectorate,—charge the full import duty of the Customs Union on all scheduled goods, but on

re-exportation to another member of the Union, pays back to the latter 85 per cent. of the duty realised and keeps only 15 per cent. as the fee for bonded warehouse. Up to the end of the War Luxemburg was a part of the German Zollverein, receiving a portion of the total customs revenue of the German empire, equal in proportion to its population. For customs purposes Lichtenstein joined Austria-Hungary in 1876 and formed part of the district of Vorarlburg. Goods 'in bond' going to Canada without breaking bulk at an American port of entry are allowed to pass through the territory of the United States without the payment of any duty. Servia formerly had no outlet to sea. At one time it had to depend upon Austria-Hungary for concessions on this score. In 1906 it entered into a sort of customs union with Bulgaria by which it received its imports and sent its exports through the Bulgarian ports on the Black Sea. After the Balkan War it entered into a treaty with Greece by which it received an independent warehouse at Salonika through which goods 'in bond' from and to Servia passed without the payment of any duty. For goods 'in bond' Switzerland also has received concessions from Italy and France, by which it does not pay any of the duties of these countries through which its imported goods pass without breaking bulk.

The foregoing instances are cited simply to illustrate the feasibility of equitable distribution of customs revenue between two separate administrative units. It seems that British India is, otherwise willing to allow customs revenue to be appropriated by the Indian States. Cochin and the Kathiawar States have got their sea ports, and they are permitted to import directly and receive the whole revenue thus realised, provided that they charge the rates of British India. The latter provision obviates the need of a customs line between British India and these States.

Thus the necessity and feasibility of a division of customs revenue between British India and the Indian States is demonstrated. There are many ways in which this division could be carried on, for each of which there is precedent in other countries. (1) The first method would be to allow goods to be consigned to a place in the Indian States 'in bond', without breaking bulk at the port of entry. Special seals would be placed on the parcels, or on whole railway trucks by the customs officials at the port, and the railway authorities would be required to deliver the consignment with seals intact beyond the territory of British India. But this method has the defect in that the latter would have to maintain a customs barrier round about all the Indian States lest these duty free articles be smuggled into it,

unless the State tariff be the same as, or higher than, that of British India. (2) The second method would be to allow the Indian States to have the right to acquire at each port a strip of land at the Docks on which they could erect thier own warehouses and customs stations. The States' customs duties, which must be the same as those of British India, would be levied here, and goods would be consigned from here to the States under their respective seals. This system has the advantage that consignments from abroad could be broken and subdivided at the port town itself, British duty being paid only on the part not entered into, or retained in, the States' warehouses. (3) A third method would be for British India to collect at its own customs rates on all goods consigned direct from abroad to a place within the territory of the Indian States, and to credit and pay over to the account of the latter the exact amount of such collections. (4) The fourth method would be to allow the collection of customs duty to continue as at present but British India should pay over to the Indian States a share of the whole customs revenue. This share may be either according to the population or the extent of territory or the consumption of foreign goods or the export of the products of the Indian States. (5) Finally, the method already prevalent in India in the case

of re-exports by sea and by certain specified land routes may be adopted. If the re-exports be by sea, British India allows a drawback of $\frac{7}{8}$ th of the import duty.* Re-exports by land are allowed a drawback only if the goods 'in bond' reach Jammu or Srinagar, Muzaffarabad, and Alibeg as also those transmitted under customs seal by the Hoshiarpur-Leh route through British India and the territories of the State of Kashmir and Jammu.† In the case of Indian States, in compliance with subsection (5) of paragraph 223 of Calcutta Customs House Manual or any similar code, the customs authorities may send the duplicate of the invoice direct to the Agent to the Governor-General of India or to the Resident as the case may be.

We think that the last method would be the most appropriate for adoption in the case of the Indian States since it is already in work in India for which the customs houses at the ports are in possession of adequate laws and regulations. This system has the additional advantage in that it would secure the distribution of the customs revenue not according to the number of population merely or the area or the income of an Indian State, but according to the volume of trade which may be taken

* See § 42 of Sea Customs Law of India, 1878.

† See Calcutta Customs House Manual of Standing Orders, pages 85-86, paragraphs 223-224.

Year	Customs Revenue				Total Imperial Revenue.	Percentage which customs revenue bears to total Imperial revenue.
	Import Duties	Export Duties	Cotton Excise	Grand Total		
1909-10 to 1913-14 (Average.)	7,94	1,30	48	9,84	66,70	14.7
1913-1914	9,36	1,29	54	11,33	67,45	16.8
1914-1915	8,07	83	49	9,52	62,86	15.2
1915-1916	7,38	79	49	8,81	65,86	13.4
1916-1917	9,90	2,47	45	12,99	83,18	15.6
1917-1918	12,00	3,32	76	16,55	103,04	16.1
1918-1919	12,57	3,69	1,38	18,18	114,07	15.7
1919-1920	15,43	4,81	1,55	22,48	117,37	19.2
1920-1921	23,15	4,84	2,36	31,97	116,80	27.4
1921-1922	27,64	4,50	2,22	35,48	113,15	31.4
1922-1923	33,56	5,24	3,87	42,67	130,00	32.7
1923-1924			3,93	45,09	134,09	33.5

as a fairly reliable index of the economic development of the particular State.

That the matter of such distribution is financially covetable can be seen from the fact that during the last ten years the customs receipts of India have increased by more than 300 per cent. as will be evident from the accompanying table. Thus a continually higher sum is being contributed to British India by the people of the Indian States. If the Indian States are equal partners in the new Indian empire, they should be accepted as equal not only in shouldering the burdens as in these taxes, but also in participating in the profits accruing from the same burdens.

II

REPORT OF THE INDIAN FISCAL COMMISSION.

Chapter XVI of the report of the Indian Fiscal Commission, 1921-22, deals with 'Indian States and the Tariff'. The Commission have made very short work of this tangled question. The chapter is about two pages in which they have solved or rather refused to discuss the problem which they themselves declare to be complicated. This is regrettable. The Commission assume that, "enclosed as they (Indian States) are within the limits of the Indian customs circle, their interests both as consumers and as producers are identical with those

of the population of British India." The Commission seem to have overlooked the fact that the customs circle of a country has a political bearing. If India were half a dozen independent political units instead of one, there would have been half a dozen customs circles. As France, Switzerland, Italy, and Austria are independent political units, therefore commodities passing to Switzerland through France, Italy, and Austria are exempted from the duties levied by the latter. Before the War the States in Germany used to receive a proportionate share of the customs receipts of the Zollverein as the States of the Union of South Africa still receive. It seems that the principle obtaining in other parts of the world has not been taken into consideration by the Commission. They mention a certain "joint memorandum representing the views of no less than 32 Indian States." This memorandum is a secret document. It seems from the report of the Commission that the only argument in favour of the participation of the Indian States in the customs receipts of India, advanced by this joint memorandum, is, in the language of the report, "that the time had come, now that the income from customs had risen to such a high figure, to consider the claim of the States to receive some share of that income". This is a sad betrayal of the interests of the Indian

States. For, the claim of the States is not only because of the great rise in the customs receipts, nor to receive *some* share of that. The principle of the customs duty is that it is a consumers' tax. Therefore the person entitled to be benefited by the tax is the Government, the people under whose administration pay the tax. The fact that the Indian States have their own separate governments which are responsible for their revenue and expenditure should have been enough to induce the Commission to declare in favour of the Indian States in this matter.

The Commission further say: "We held, however, that the terms of our reference did not cover an enquiry into this complicated subject, which would raise questions of treaty obligations and of contributions from the States for the defence of India as a whole." It does not require to go through treaty obligations to know that a separate administration with separate revenue and expenditure can tax its subjects, and that no body else can do so. This is the general principle in all countries and all governments, and an exception to this rule cannot be recognised. Thus the proper course for the Commission would have been to declare for this right of the Indian States, subject to any surrender by them of their right in this direction. There could not be any such obligation by surrender for the simple reason

that most of the treaties with the Indian States are political treaties entered into at a time when the present "customs circle" had not come into existence.

A suggestion is that this problem of customs revenue would raise the question "of contributions from the States for the defence of India as a whole." In other parts of their report the Commission talk of the conditions and affairs of all countries of the world. But in this matter they have omitted to see things fairly. On the above argument of the Commission the United Kingdom has the right to take the customs receipts of India inasmuch as India contributes little towards its naval and air defence. At any rate the United Kingdom should have, on this argument, the right to interfere in Indian customs duties for its own benefit. Canada, Australia, South Africa, and all the Dependencies realise their own customs duties imposed for their own use, although none contributes towards its defence to any material extent. Should then the United Kingdom have the right of dictating and appropriating the customs receipts of those countries?

We do not mean to say that those countries do not arrange for local defence. But such defence is very incomplete and all have to depend upon the United Kingdom for their defence. The position will not alter much

even if the post-war scheme of naval contribution by the Dominions and Colonies come to materialise. The Indian States maintain armies to defend themselves from aggressions and disorders and contribute in men and money towards Imperial defence exactly as British India or any other unit of the British Empire does. The States depend on British India for defence against a wider and stronger external power exactly as British India does on the United Kingdom. Also the political power of the United Kingdom over British India is much greater than that of British India over the Indian States. If the claim of the United Kingdom to regulate the customs tariff of British India be resented, how much more should the wholesale appropriation of the customs receipts derived from duties imposed upon the States without even their formal consent should be resented,—the States whose position is more independent in relation to British India than that of British India in relation to the United Kingdom? It is this principle of justice, equity, and fair dealing from which the Indian Fiscal Commission have drifted away for the narrow and immediate interest of British India, upon which is based the claim of the Indian States in the matter of the customs tariff.

Again, the interest of the States “both as consumers and as producers” may not be

“identical with that of the population of British India”. We do not declare any thing on the merit of this particular case, but suppose for the present that the sandalwood oil industry of Mysore requires to be protected by a tariff. Who will judge the case? The Commission’s god, viz., the Tariff Board. If the Commission themselves have failed to do justice to the Indian States, what guarantee is there that justice will be done by their creature, the Board? Moreover, the Board will have no representation from the States. The Commission declare that they refuse to have representatives as such of particular industries because this will lead to scrambling for tariff to protect those industries in which the representatives are interested. But the Board must consist of those who are interested in the industrial development of India, and not in that of another country. Similarly, the Board should have representatives from the States not with regard to any industry but with regard to the development of these States, so that one of the most vital interests of the States may not be bartered away into the hands of a body which have no interest in, and which may have political sentiments antagonistic to, the Indian States. Otherwise it will be interfering with the political powers of the Indian States if they could be compelled by British India either to pay for industries

which they cannot develop within themselves or to go without substantial protection of industries for the development of which they have special resources. Thus the interests of the producers of British India and the Indian States may be divergent and even conflicting.

This is again seen in another miscarriage of justice. The States have to maintain their own governments for which they have to find revenue. This means that they have to levy their own customs duties; all the States do so. The impecunious condition of the Government of India has led them to tap all possible sources of customs revenue, and tap them to their full. Even without any idea of protection the general rate of import duties has gone up from 5 per cent. or less in 1914 to 15, in some cases 30, per cent. in 1923. What would have been the condition of the people of the Indian States if the customs duties of the latter, which, in the existing circumstances, are necessarily in addition to the rates of British India, were increased on a similar scale? Even without such increase the State duties increase the burden on the consumers in the States. Is the position of the consumers in the Indian States the same as that of the consumers in British India as presumed by the Commission?

The population of the Indian States is more than one-fourth of the total population

of India, that is, nearly eight crores in the aggregate. Therefore, the taxation by British India of the States' people takes out a sum of about ten crores of rupees at present and threatens to take out a continuously greater sum in future.

If this contribution be necessary as a contribution of the States towards the expenses of India's defence, although we believe that the question must be taken to have been finally settled with each State at the time of the treaty either in the form of indemnity or in that of tribute, yet such contributions should be definitely fixed and directly levied. Let the State Durbars pay the sum, and let them have a proportionate share in the customs receipts of India. Such contributions should not vary according to the financial needs of the Government of India, on which the States have no representation, nor should the burden vary according to the decision of an extraneous body like the Tariff Board or the Indian Legislature.

In future British India and the Indian States are expected to co-operate in the wider issues involving the common interests of the whole of India. In modern times the most effective weapon against a State is economic. Thus the political development and practical independence of the Indian States are in jeopardy if this powerful economic control of

the Indian States be left with the legislature of British India. Even if the Tariff Board were remodelled as indicated above, the authority to pass fiscal legislation should be both the legislatures of the Central Government and the Governments of the Indian States or the Chamber of Princes on behalf of the latter.

In recent years some favoured States have been given exemption from the customs duties of British India. The State of Kashmir and Jammu and the States of Kathiawar are illustrations. They have only got their due. Justice requires that similar rights should be given to other States as well. The above cases show that British India recognises the justice of the cause of the Indian States. Therefore, it looks highly unfair to shut out others from what is accepted as right with regard to some States.

PART III.
CURRENCY AND EXCHANGE

CHAPTER IX.

THE GOLD EXCHANGE STANDARD

GENERAL PRINCIPLES.

The fundamental principle of the gold exchange standard is that the home currency is different from the medium of international payment. But the relative value of the two is permanently fixed in terms of each other. It is evident that if this be secured, all the advantages of a gold currency will accrue, for the main object of introducing gold as the currency is to be assured, in times of need, of the adequate supply of a metal which is universally accepted in the settlement of outstanding debts. The working of the system is not very complicated. A gold reserve is built up to ensure that the international currency will be available when required by the demands of external trade. This may be distributed amongst different centres of the world according to the needs of the country for remittances. Bills will be drawn by the Government of the country either on itself and sold abroad, or on its foreign gold reserve and sold at home. The amount of such bills should be the difference at any time between the demand for remittances and their supply at par. (1) Thus if at

Paris the rate on a country, as quoted in the home currency, goes up, this would show that demand for remittances to the country whose currency has thus appreciated at Paris is greater than supply. Bills on that country, drawn against the foreign gold reserve, will be sold at Paris, and their amount would be just enough to bring down the exchange rate to par plus the cost of transporting specie. It is therefore clear that these bills must in all cases be the marginal bills in the market, that is, those bills which are the least profitable ones to come into the market. The gap covered by the excess of demand over supply is just filled up by the sale of these bills. This can be easily managed by an open offer to sell at the fixed rate to an unlimited extent. (2) On the contrary, when the exchange rate falls in Paris, it shows an excess of supply of foreign bills over demand. At such a time the foreign country whose currency has thus depreciated would draw bills against its gold reserve at Paris, and thus choke off some bills at Paris by supplying remittances to the foreign debtors of Paris exporters. Or, in such a case the French Government may undertake to sell in the foreign country remittances to Paris, with the same result, viz., to push up the exchange rate at Paris. The French Government would do this whenever it finds this to be a cheap means of building up a reserve in the particular

foreign country. In the first case the bills will be drawn against French gold reserve in the foreign country but paid in the currency of that country, which will be easily available there. In the latter case the bills will be sold in foreign currency but matured in French currency. If they are sold by the French Government the sale proceeds will add to its gold reserve in the foreign country; that is, the foreign country will convert the sale proceeds of the bills realised in its currency and credit France with a corresponding amount in its gold reserve. It is evident that actual gold need not pass even between the agency of the French Government and that of the Government of that foreign country, because an accommodation like this in terms of gold will be required by the French Government mainly to sell in Paris bills against it, and these will be paid in the foreign currency. What the French Government needs to be sure of is the fact that the reserve which it has built up in the foreign country by a sale of bills on Paris will again give it an equivalent amount when Paris bills are drawn against the reserve.

Within the country the home currency will consist wholly of token coins and notes, including the full legal tender money. The Government will guarantee an unlimited conversion of the home currency into gold bills, and *vice versa*, thus always ensuring that the

exchange rate will not vary beyond certain maximum and minimum limits. These limits should be fixed at the specie points. Thus all bills sold by the Government will bring some profit to the Government inasmuch as, normally, the foreign reserve will be built up at the gold import point, and the bills will be sold at the gold export point. All this profit should be earmarked for swelling the gold reserve. The main portion of the reserve will be built out of the profits of coinage. The home currency being wholly of token coins and notes, its issue will mean profit to the Government. This should be utilised in piling up the gold reserve of the country.

Thus the gold exchange standard will bring about the following advantages :

(1) Economy in the cost of the home currency. Moreover, gold will fall in value if national assets are not locked up in financing the actual circulating media of a country. At the same time the present stock of gold can be utilised for the new gold reserve for exchange purposes. On the other hand the profit derived out of token coins will be used also in buying gold for the reserve, and, to this extent, which will be much less than what would be required if the home currency were in gold, the demand for gold will rise.

(2) Economy in building up the gold reserve. The profit out of minting token coins

will swell the gold reserve, or accommodation in foreign currencies fixed in terms of gold. It is evident that, in the beginning, the first and the second advantages cannot both accrue, since, to secure the second, the first will be swallowed up. But that will be so only till a working reserve is secured. After that, instead of all the profit, only a certain proportion, fixed and definite, may be thus utilised. The rest will be the net profit to the country. To the extent that notes can displace actual coins, there will be further economy to the country because the note issue is nothing but token money.

(3) The exchange rate will be as stable as it can be under the existing system because the fluctuations can never go beyond the limits fixed by the gold points. Probably they will be less, especially when the movement of gold is minimised by the introduction of the system of granting credit to a country in a foreign country against the former's holding of gold in a third country; which of course will be earmarked for such credit till it has matured and has been met.

(4) There will be international guarantee against seizure of this gold reserve in foreign countries. This will assure international trade of a medium of settlement, which will be available for this purpose alone. The guarantee will further enhance the international credit

of a country, because by it the reserve cannot be sequestered in any circumstances. Similarly the internal law of the country will guarantee against its sequestration by itself for any purpose other than maintenance of exchange, that is, settlement of its external debt. The amount of this reserve together with the condition of its external trade or rather the balance of its outstanding external debt will determine at any time the international credit of the country, inasmuch as this will show the capacity of the country to finance its external trade, when its imports and exports, visible and invisible, do not equate. The main attempt of each country should be to accumulate a reserve which is not excessive because that would mean a national wastage, but which is certainly not below what is required by the conditions of its external trade. Thus it will be cheaper for a country to build up its foreign reserve if it has a favourable balance of trade, as it can sell remittances to itself from foreign countries. But the cost, in any case, can never exceed the expenses of shipping gold. An adverse balance of trade will necessitate a sale of bills on foreign countries. This, however, need not necessarily mean transport of gold to these countries. If those countries buy accommodation in the country concerned, guaranteed by the gold which must be sent to meet the adverse balance it can receive similar

accommodation in those countries, against which it can, in its turn, sell bills. In this operation what are known as arbitrage transactions will necessarily enter, and the chances of loss by fluctuations in the exchange rate will be further reduced. In any case, if the country is solvent in the long run, that is, if ultimately its debt balances its credit, as there must be under the operation of economic forces, the exchange rate can never fluctuate beyond the gold points. The fluctuations will reach gold points only for a time during which a tolerably good reserve is being built up. After that the fluctuations will be further limited. At the same time all the advantages mentioned in (1) and (2) above will accrue to the country.

(5) One advantage of the gold exchange standard over bimetallic and other systems is that it can work with countries on a gold basis. Even if a country refuses to accept it out of habit, pre-conceived ideas, or any thing else, this will not hinder other countries from adopting it, and yet carrying on international trade with gold using countries. If, for example, Greece sticks to the use of gold, France or England, if it adopts the gold exchange standard, can sell bills in Greece on Paris or London, and pile up its gold reserve there at a time of favourable balance and sell bills in Paris or London on Athens at a time of adverse balance. For the latter contingency it must

have a reserve in Greece or in any other country, bills on which are in demand in Greece. Of course, if all the countries join together and use token coins and notes as their home currency, the gold reserves can be cheaply built up since the gold circulating at home will thus be liberated and earmarked for the settlement of international debts.

(6) In the beginning the gold reserve must remain as the basis of all such settlement. But when the war conditions disappear and the normal working of the system continues, it is not necessary for actual gold to be passed from one country to another. Gold, for example, may be definitely set apart for supporting the exchange rate with another country, and gold certificates may be issued against the reserve, which the Government of the other country will recognise as representing gold. This involves international guarantee of the gold reserve, and the local Government's good faith in not diverting this reserve so long as the gold certificates in the foreign countries have not been paid off by a sale of bills on its own country, drawn in the country where the gold certificates originated. These transactions will have to be done under the sanction of the Government concerned but through a recognised bank. The greatest publicity should be given to the amount of the gold reserve as earmarked for supporting the exchange rate

with a particular country; to the amount kept fluid, ready to be turned for other exchange purposes; as also to the variations in each from time to time, say, from week to week. Finally, when the system has worked for some time, the problem of whether, instead of gold certificates (i.e., representatives of actual gold kept in the reserve), international credit papers based on gold can be created, may be profitably discussed. The gold reserve will thus work exactly like the cash reserve in the home currency, kept against the note issue. This will mean further economy in the use of the metal as international money. This system, if properly handled by an international body, can reduce the uncertainties of fluctuations in the value of gold, which are sometimes a highly disturbing factor, especially with regard to the disturbances in the level of world prices. This is a highly subtle operation, but to the present writer it seems to be not altogether outside the range of practical considerations.

All the foreign operations can conveniently be carried on by the central banks of the different countries, as, for example, the Bank of England working on behalf of the British Government.

II

There are however certain drawbacks of the proposed system, which should be carefully

studied, and their working properly comprehended. The first drawback which must already have arisen in the mind of the reader is that the gold exchange standard is a Government managed system and not automatic. Of course, it is managed by the Government. But it is nevertheless automatic. The first essential for a currency is that its amount should increase or decrease according to the need, that is, according to the volume of transactions to be carried on with the currency. If, for example, there is an adverse balance of trade, it shows that the country is a good market to sell in and a bad one to buy from. The reverse process is at once started by the efflux of specie to meet the adverse balance when the reduction in the home currency increases its value, and diminishes the prices, thus making the country a better market for buying and a worse one for selling. If this be considered as the fundamental feature of an "automatic" as opposed to a "managed" currency, then the exchange standard is certainly automatic even if it be managed by the Government. Let us suppose that both England and France have adopted the proposed system; let us also suppose that exports from England to France are greater than the imports. Under the existing system gold will flow from France to England, swell its currency, and push up English prices, while the contrary will be the case in France.

The remedy will thus be found by cheapening French products in England, and making English products dearer in French money. Therefore, French exports to England will increase and English exports to France will diminish; and the balance of indebtedness will be restored. It should be noted that the amount of export, which is invested abroad, does not affect exchange so long as it or its income is not remitted.

Now let us see what will be the case when England and France, in our foregoing illustration, are under the new system. To make payment to the English creditors, French debtors will, as under the present system, try to buy bills on London; but as the amount of these represents the amount of English debt to France, it will be less than the French debt to England because there is, as is supposed, an adverse balance against France. So, sterling will tend to rise in franc, and as gold is not circulating in either country except perhaps as token coins, the rise in exchange will tend to be indefinite, limited only by the extent of the token character of the gold coins, if any, in circulation, or the facility of buying gold as a commodity in France. But here the Government will intervene, and sell an unlimited amount of sterling realisable in London at a rate corresponding to the gold export point. This will at once check the rise by neutralising

the excess of demand over supply of sterling bills. By their sale the French Government will realise, in French home currency, the amount of sterling in franc. This should be rigidly kept out of circulation as a part of the home reserve for maintaining the exchange rate, and therefore the amount of French currency, being reduced, will rise in value and bring about a fall in prices. At the same time, these bills will be presented in London and paid in English home currency out of the accommodation which the French Government will have from the English Bank against the French gold reserve in London. This will swell the currency in England, bringing about a fall in its value, and a rise in prices. This is exactly the process which we want to have in operation in the case of an excess of English exports over imports, and this is exactly what the existing system normally does. The point to be noted is that the French currency thus locked up should never be liberated except to mature Paris bills sold in other countries to maintain exchange. It is in this way alone that the home currency will respond to the joint stimulus of home and foreign trade. And this is what we mean to have when we say that the currency should be automatic. Thus it will be seen that a "managed" currency and an "automatic" currency are not two contradictory conceptions as in the popular mind, but

that the two principles can be combined together in the exchange standard system, to the great economy of the countries adopting it.

(2) It is evident that, to secure the greatest economy, it is essential that the home currency should consist of very cheap metals, so long as metals are considered to be necessary parts of home circulation. This means that silver and other metals will be largely used as token coins. It may be anticipated that the countries adopting the exchange standard will have more coins of silver, displacing gold. This means that the value of token silver coins must remain below their face value as fixed by the exchange rate adopted and maintained by the Government of the country. Want of this led to grave troubles in India during 1917-1920, especially in 1919-1920. It is evident that if the price of silver rises in terms of gold, and sweeps away the token character of silver coins circulating in different countries, it will be profitable to utilise such token coins as bullion, and use them for other than currency purposes. For example, India till 1916 had a fixed exchange of 1s. 4d. to the rupee, the rupee containing metal roughly worth two-thirds of the face value. By 1917 the price of silver increased so much as to make the intrinsic value of the rupee more than its face value as fixed by law and maintained in exchange. The Government

had no alternative but to raise the rate to cover the rising value of the metal. The sterling value of silver rose from below 28d. per ounce to about 90d. Apparently the rupee coin was threatened. The exchange rate had to be raised to more than 2s. 10d., and the Government had to support this rate by selling bills in India on its gold reserve at London. The resources of the Government were too limited to meet the unforeseen and unprecedented rise in silver. During the last half of the nineteenth century the fall in silver unnerved all the countries, and several international monetary conferences were held to stabilise, if possible, the gold value of silver. But then the price of silver varied from 59½d. per ounce in 1844 to 42d. in 1889, a fall of about 30 per cent. Whereas the sterling value of silver in 1920 as compared with that of 1914 rose by more than 200 per cent., from which the extent of sterling depreciation will have to be deducted to find the net variation; this latter was about 30 per cent. Therefore, we may say that the variation in the value of silver was unprecedented, and, humanly speaking, no country could have made provision for such a rise in anticipation of events. In such extreme cases the exchange rate will have to be altered to protect the coins unless a country is prepared to give up its coins of a particular metal the gold value of which rises.

But ordinarily the best insurance against such a contingency is to have a token silver coin, the face value of which will be considerably above its metallic value, so that any probable rise in silver will not easily swallow the margin by which the coin is made token. If this be done, then this feature, instead of being a drawback of the proposed system, becomes highly economic in two ways. Firstly, it makes it less costly for a country to have its coin circulation, thus reducing the cost of national investment in the home currency. Secondly, as the profit of coinage, or a portion of it, is to be utilised for building up the gold reserve, the resources of a country to have its gold reserve increase with the margin which is kept between the face and metallic values of the silver coin. To the extent that gold coins are kept for home circulation this contingency does not arise. The above considerations *ipso facto* apply to token coins of other metals.

(3) There is the danger of currency inflation, which, it may be urged, will increase if the system be adopted. When the existing system is in normal working order, any divergence between the value of the coin and that of its metallic contents is quickly reduced through the system of free coinage. But under the proposed system the mint being closed to the public, there will not be any such increase in the coins nor will there be a reduc-

tion by melting since the coins will be token ones. In this consideration we should not lay too much emphasis on the function of coins in the determination of prices. The limitations of the quantity theory of money should be recognised. In the present system money has been displaced to a considerable extent by notes, and, where, as in England, the note issued is very rigidly limited by the legal conditions regarding the metallic reserve, the law has been successfully dodged to the great benefit of the country by the development of the system of cheques, bills, and advances by book-credit. The Bank Charter Act of 1844 might have ruined the economic progress of the United Kingdom if this system had not taken up the work which the Act sought to restrict. In Germany the English system was relaxed by allowing an excess issue on emergent occasions on payment of a tax of five per cent. The argument may be advanced that the notes, being legal tender, should be cautiously guarded. This is right, and this can be attained in the proposed system by carefully noting the variations in the purchasing power of money, and making the home currency elastic enough to respond to such variations. In such response plenty of caution can be exercised, and the amount can be made to grow with the growth of demand. But the fact needs to be emphasised that the

internal trade of a country can be and, in all advanced countries, is actually financed by the credit system which has developed so wonderfully, and the evils from the breakdown of which are so patent now. So, the home currency need not in itself be so responsive to the demands of internal trade. It was not so before the War disorganised the existing system. Rather it should respond to the movements of external trade where bills are considered, either really as in the case of 'drafts with documents', or fictitiously as in the case of 'accommodation bills', to be the crux on which the exchange rate largely depends. Moreover, bullion as money enters only in international payments as a determinant of values. Therefore, the response which a country should aim at can be secured, as has been shown previously, by locking up the proceeds in the home currency, out of the sale of bills in foreign countries against the gold reserve, and releasing them only in payment of bills drawn by the Government on itself, and sold in foreign countries to support exchange or add to its gold reserve in those countries.

If it be considered essential to have the home currency immediately responsive to the internal trade conditions without, as is really done, having an inflation or deflation of the credit system, this also can be achieved in the

proposed system. Ordinarily when gold rises as bullion, coins are withdrawn from circulation to be used as metal, and when it falls, bullion is brought to the mint. In the proposed system when gold falls in terms of the token coin at its face value, the Government would be prepared to receive gold and issue the home currency at par in exchange for it. When gold rises, the Government would accept the home currency, and release the gold locked up by the former process. But this demand for gold cannot be for an indefinite quantity because this gold cannot be coined and therefore can have only bullion value within the country. To begin with, the export of this gold will have to be restricted as it is done at present by all the European countries. Or, instead of releasing gold within the country, gold bills may be issued on another country as are done by India on London in the form of sterling drafts called reverse council bills. In either case the ultimate effect on the home currency will be the same.

Thus the system will work even with a gold standard for internal prices without a gold currency, and, on this point, will be analogous to the external standard which is always gold. It should be noted that this gold reserve for internal use must be entirely separate from and unconnected with the gold reserve maintained to support exchange.

This does not mean that there will not be any transfer of gold from the home reserve to the exchange reserve. Like the issue and the banking departments of the Bank of England, the two will work in harmony but kept distinct. This internal gold reserve need not necessarily be the object of international agreement, and may be left to individual States. So far as other countries are concerned the level will be automatically determined by the balance of indebtedness working through the locking up or release of the home currency through the exchange reserve.

(4) It may be objected that the cost of building up and maintaining a gold reserve dispersed in many countries will be very great. This should not act as a deterrent inasmuch as such cost can never even approach what will entail if an attempt be made to rehabilitate gold as the circulating medium of the countries of Europe. Moreover, the gold reserve will be kept at different places also for the sake of economy. For example, if, in Sweden, bills on Paris be at a premium, the obvious interest of both Sweden and France under the proposed system will be to sell bills in Sweden on Paris. Sweden will do so to add to its gold reserve at home, and France to add to its reserve in Sweden. In either case these bills will be sold at a rate approximating to the gold export point, since they supply a market

which is shorter of bills; that is, the value of kronor in terms of francs will have gone down. This means that the gold reserve in Sweden, whether accumulated by that country or by France, will grow at a cost less than it would do at par. Therefore, the proposed dispersion of the gold reserve of a country is meant for further economising the cost of the reserve. Such a reserve may be at home or at any important centre abroad. When the system has developed sufficiently it will not be necessary to transmit gold from the reserve in one country to that in another, but gold certificates or even credit papers can be issued in one country backed by the gold in the reserve held in another country, but earmarked for the redemption of such certificates or credit papers. Even with regard to the cost of holding such reserves it is not necessary to have them separately at the same centre by the different countries, but the local bank, e.g., the Bank of England in London, may keep them and charge the cost to those countries. With international guarantee of the integrity of the reserve, the cost of maintenance will be materially reduced.

POSSIBILITIES OF THE EXCHANGE STANDARD.

Some of the possibilities of expansion of the exchange standard have been incidentally

noted in the foregoing discussion of its underlying principles. Here we may conveniently state them together.

(1) The central bank in each country will do the work on behalf of the Governments of the different countries. This will considerably reduce the cost of maintaining the reserves, and the publication of the reserve accounts separately will materially help to inspire confidence. When the working of the system has developed, and it has reached the end of the initial stage, a further development will be in the establishment of an international clearing house of these banks, first to square the reserve accounts and then to settle international bill debts in one country against credits in another. Thus even the international movement of gold on Government account to encash exchange bills or secure gold will be obviated to a large extent.

(2) The banks will have international accounts. These will be credited or debited against gold held at any of the central banks doing exchange business on behalf of the various countries. Through the international clearing house the total reserves of any country held in all the countries will be unified and therefore more effectively used than they could be if each reserve were separate and unconnected with the others.

(3) Thus gold reserves need not be held in

all the different centres with which a country has dealings. These may be built up only at convenient centres, or even at one centre, and credit obtained, through the central banking organisation, in other countries where a country has no gold. For example, in Europe London may theoretically be the only centre of international gold reserve. Others may be at Tokio, New York, etc.

(4) The clearing house system, starting with the exchange operations in the new system, may be spread to other operations of the central banks. This will be only an extension of the system which was already working to some extent in Europe before the War. But the solidarity of interest, as developed through the exchange reserve system, with international guarantee, is bound to reflect upon the efficiency and ease with which other operations of the central banks than exchange ones can be carried on.

(5) The unification of the reserves of each country, and the international guarantee will necessarily secure for a country better credit in the world market. Gradually, through the same system, and on the basis of the reserves, an entirely new credit system may be organised. Like the fiduciary portion of the note issue in the home currency, international credit papers may be issued, which will have as free circulation in the international market

as the best of securities. Such an issue will be of a much later date, but there is no reason why it should not succeed if, through the central banks, these credit papers are issued on purely business principles, and if their issue be properly safeguarded by an international agreement on the principles, for example, of the English Bank Charter Act; or, on a more elastic basis like that in Germany or America with a high penalty for any excess issue; or, on a combination of the two principles, that is, elasticity on payment of a penalty up to a certain amount, beyond which, like the English system, there shall be no further fiduciary issue.

(6) Finally, through the same organisation international borrowing may be facilitated. This borrowing may be either in the form of loans or merely credit accommodations. That is, it may be either a regular loan, or, like the treasury bills at home, temporary only. In the latter case, in the beginning at least, the floating debt should be kept within a statutory limit.

The fundamental point in the whole system as adumbrated above is of course the international guarantee that, in no circumstances, the gold reserve of one country will be seized by another country. Such an act must be agreed to be considered as *casus belli* without any hedging condition. That is why

it must be accepted by international agreement before it can have any hope of success. That seems to be the only economical method of rebuilding the currency and exchange stability of the world in general and Europe in particular, and upon this depends not only the material development of Europe but of the whole world. Therefore, in the interest of each State separately and all States jointly, the gold exchange standard should be adopted by those who intend permanently to adopt it as also by those who intend temporarily to adopt it with a view to converting it into a gold standard as soon as the economic prosperity of a country justifies the investment of a large amount of national wealth in the mere circulating medium within the country.

APPLICABILITY TO EUROPEAN COUNTRIES.

There is little chance of recovery from the currency disorganisation in the European countries east of the Rhine. In other words, more than two-thirds of Europe are not expected to recover if the gold currency is sought to be re-instated. Of these parts Germany was the only country which probably might recover but now its case also is hopeless. Therefore, a cheap and effective method of currency recovery will have to be found if the delicate balance of the

economic situation in Europe is to be restored. In this, not only are the more favourably placed countries of Europe concerned, but all the countries of the world. Japan suffers from want of any demand for its goods. India is passing through a similar crisis; its exportable surplus cannot be absorbed so long as the currency and exchange system of Europe is not placed on a sound footing. The United States is also suffering from the same want of demand for its exports. At the same time a large portion of humanity is suffering indescribable agony from want of goods which glut the extra-European markets. Humane sentiment and self-interest thus combine to urge the great countries of the world to help the rebuilding of Europe. Besides the settlement of the amount of reparations and the balancing of the budgets, an essential condition of such work is to re-organise the currencies of those countries, and, in doing so, one must not lose sight of the cost of the home currency. The home currency in most countries consists of inconvertible paper, but within the countries themselves, the paper has been circulating, although, in some cases, hopelessly depreciated. The immediate problem therefore is to stabilise exchange, that is, the value of the home currency in terms of foreign currencies or preferably gold, and simultaneously to reform as rapidly as possible

the home currency. The latter will be rapid in proportion as it is cheap. The recovery will be effective in proportion as it is not merely a makeshift, but based on a system which can work permanently. The exchange standard has both these essentials. It is cheap inasmuch as it dispenses with the national investment of a large sum in the home currency, releases most of the existing gold reserves to stabilise the external value of the home currency, and further provides for a development of the reserve in proportion to the increase in the volume of transactions, which, by demanding more of the home currency as time goes on, will swell the profits of coinage to be utilised for the exchange reserve. The system is permanent inasmuch as it will work with equal efficiency when normal conditions are restored. Indeed, it will then work with greater efficiency than the gold currency by being independent of the fluctuations in the value of the bullion.

It may be pointed out that the exchange standard will not hinder any country from subsequently adopting the gold standard. When the gold reserve is sufficiently big, and when time is considered to be ripe for it, the reserve may be utilised in replacing the token legal tender by gold coins, and in withdrawing the token coins and notes in exchange for the new coins. Thus the proposed system can be

adopted not only by those countries which intend to stick to it, but also by those which want to have the gold currency, and are unable to finance it now. Unlike national bimetallism it has the further advantage in being able to work efficiently side by side with gold currency in the neighbouring countries.

Finally, it may be pointed out, although it must be known to all economists, that a high or low exchange rate has absolutely no permanent effect upon the trade and production of a country. The effect is only temporary, that is, so long as internal prices, wages, etc., do not adjust themselves to the new exchange rate. In other words, production and trade gain or suffer, as the case may be, only when the exchange rate is *falling* or *rising*. They are also affected by fluctuations of the rate, but this is so because of the uncertainty involved. Once these fluctuations are steadied through the proposed exchange reserves, and the rising or falling exchange rate stabilised, it may be, at any point, adjustments proceed rapidly. In fact, to some extent, adjustments have already been effected. After this process is completed, the exchange rate has no influence whatever on trade and production. The point is very important because it may be imagined that the countries whose currencies are greatly depreciated cannot recover so long as the pre-war parity is not

attained. Shortly, it may be said that, with a high exchange (quoted in home currency), exports are stimulated, and imports discouraged. But once the internal adjustment to the high rate is complete—it will take different periods for different interests—the result will be a rise in the level of prices at home, and therefore in the cost of production, that is, the supply price of exports, thus neutralising the effect of the high rate. On the contrary, with a low exchange, exports are discouraged and imports encouraged. But this means a fall in prices, lowering the cost of production, or the supply price, of exports, thus neutralising the effect of the low rate. The above process is of course not so simple, but, in the final analysis, that is the predominant force. This is especially so for the European countries which are not at all self-sufficient and therefore in whose economic life foreign goods, both raw and finished, enter on a much larger scale than in other countries. It is evident that the greater the foreign trade of a country the greater will be the ease with which the evils of a depreciated currency can be obviated by accepting the depreciation to a large extent, and stabilising at that. If the depreciation be great and if yet the currency be decided to be retained, the best method will be to stop further depreciation, or for the matter of that, further fluctuation, by stabilis-

ing at that point, and linking the standard, so hopelessly debased, with a new standard which will supersede the depreciated one as the full legal tender. This latter will be a token coin, and be linked, in its turn, with gold in the exchange standard. The attempt therefore of Germany for having the Boden-mark or Thaler is in the right direction.

CHAPTER X.

THE COURSE OF INDIAN EXCHANGE IN 1919-1920.

To understand the currency and exchange problem of India adopted since 1893 it is necessary to follow the history of the rupee. Since 1835 the rupee has been full legal tender, and up to 1893 it was a free coin. But owing to the continued depreciation of silver during the second half of the nineteenth century (in 1844 it was 59½d. per ounce, in 1889 it was 42d.), the rupee could no longer be considered as the equivalent of 2s., the rate at which it was usually convertible into gold. This conversion was of course dependent upon the market rate of gold and silver; the Rx of those days was roughly the pound sterling. The rupee was at this time a free coin and the pound was not recognised as the currency of India. Thus the relative value of gold and silver in the exchange rate depended upon the fluctuation of their relative value as bullion in the world market. Silver depreciation therefore brought about violent fluctuations in the exchange rate, and all interests—imports, exports, home charges, etc.,—grew nervous at this uncertainty. A general desire for stabilising the external value of the rupee was manifest in India. The proposals for inter-

national bimetallism failed at the international monetary conferences of 1878 and 1881, as also the proposal of the United States at the monetary conference of 1892 to "increase the use of silver as money in the currency systems of nations" for the purpose of retarding the fall of silver by creating a demand for it among the nations of the world. Thus it began to be insisted in India that either the rate should be controlled or gold should be introduced as the circulating medium. It was found at the time that gold was unsuitable for India as currency. Thus the problem was how to keep the rupee as the internal currency and at the same time to have a steady exchange rate with gold-using countries, that is, the countries with which the major portion of India's foreign transactions were carried on. In this way what is known as the gold exchange standard was evolved. To secure this, one method was to reduce the rupee to a token coin and consequently stop its free coinage, so that the normal fluctuations in the relative value of gold and silver would not be able to affect the exchange rate or the money value of the rupee. The alternative was to introduce permanent Government control of export and import of gold and silver to keep up an artificial rate between the two metals in India, different from that in the world market, thus penalising all uses of silver in India other than

for currency. A token rupee could evidently be maintained as long as the gold price of silver did not rise so high as to reduce wholly the margin created by making the rupee token. Now this object of having a token rupee might have been secured by either of two ways. The rupee might have been debased, that is, its silver contents might have been reduced. Or the exchange rate might have been fixed at a point at which the value of the silver contents of the rupee would be permanently lower than its face value in gold. The latter method was adopted in 1893 and the exchange rate was fixed at 1s. 4d. to the rupee.

In this system the obvious defect was that when gold was excluded from circulation but retained in exchange, the rate could not be restricted within the specie points since gold would not be easily available in India for purposes of external payment. The upper limit to the exchange rate set by the higher specie point, that is, the gold import point could not rise because (1) Europe, working for India through the London money market, was a free market for gold, and (2) such a rise might easily be prevented by sales of council drafts by the Secretary of State at London. But the difficulty was about the lower specie point, that is, the gold export point. If gold were not easily available in India for purposes of foreign payment, the rate might go down below the

specie point, that is, gold might run up and be at a premium; in which case the gold exchange standard itself would break down. Of course, this danger was neither continuous nor very great in extent inasmuch as India maintained, as it still maintains, not only a favourable balance of trade but also a favourable balance of indebtedness; this balance is to the extent of India's gold imports and the gold reserve built up in London by selling council drafts in excess of the requirements of the Secretary of State. Yet for the contingency provision had to be made. Hence the Government of India undertook, although not legally bound, to supply gold for external payments in times of unfavourable debt balance. As all the external financial transactions of India, as of many other countries, used to be carried on through the London money market, it was considered more convenient to hold the gold reserve of India at London, so that when the exchange rate tended to fall below the specie point, the Government, instead of giving actual gold for foreign remittance, would give the equivalent of gold by offering reverse councils on London. The great advantage of this system is that it obviates unnecessary movements of gold to and from India, and, by the sale of council drafts at the higher specie point and that of reverse councils at the lower specie point, leaves to India a profit of about double the cost

of transmitting specie. Even if the sale of reverse councils be not necessary the gold standard reserve as indeed all Indian gold reserves at London is built up cheaply, that is, at the higher specie point, since council drafts in excess of the Secretary of State's requirements are drawn at a favourable rate by offering council drafts at the proper time of the year, that is, whenever the rate tends to exceed the higher limit.

Thus it will be seen that (1) the rupee was not tampered with in 1893 when it was reduced to a token coin; and since 1835 it has been the standard not only as coin but also as to its weight and fineness throughout the whole of India; and (2) the exchange rate was in reality fixed in gold as in those days sterling meant immediate gold; and reverse councils, meant to support the rate at the bottom, were drawn also in gold, that is, sterling.

In 1899 the pound sterling was made legal tender in India at Rs. 15 with a view to the eventual introduction of gold as the currency of India displacing gradually the silver rupee. We need not now enter into the question, but for good or for evil the scheme of introducing gold as our currency was abandoned, perhaps within a few years of the recommendation of the Fowler Committee. Since then our system definitely became the gold exchange standard and not as before a prospective gold standard.

This system has been supported by the Chamberlain Commission with certain modifications about gold coinage in India, which do not affect the principle of the system.

The gold exchange standard worked admirably well in India till 1914 as if the standard were of gold but at a considerably less cost to the country. Then came the war followed by an unprecedented rise in the price of silver and depreciation of the pound sterling which, for external purposes, is no longer convertible into gold. With all this India's troubles began. During the war however they were managed by India's purchase of more than 200 million ounces of silver from the United States at controlled price and by the official fixation of the dollar-sterling rate at $476\frac{1}{2}$, that is, only 10 cents below par. The control on the cross rate was removed by the Government of the United States on the 20th March 1919, and that on the price of silver a few weeks later. Immediately the crisis in our exchange became manifest. The special features of the crisis may be said to be mainly three, viz., (1) sudden and unprecedented rise in the price of silver, (2) divergence of the pound sterling from gold, and (3) influence of the London-New York cross rate upon Indian exchange.

(1) The price of silver rose very much owing to world causes. These are signs of

exhaustion of Canadian mines, political unrest in many of the South American States, especially Bolivia, and demand in Europe and other countries for silver to substitute for gold. Hence the margin obtained for the rupee as a token coin was not only swept away but the rupee was reduced to much less than the worth of its silver contents. This meant that instead of being appreciated in currency, silver became appreciated as bullion and depreciated as currency. Thus the rupee coin in circulation was threatened.

(2) To make our position worse sterling simultaneously declined. As our exchange was linked with sterling, its depreciation in terms of gold meant a rise in silver even when its price in gold, i.e., dollars was unaffected.

(3) New York tended to become temporarily the monetary centre of the world, the position so long held by London. As gold could be freely obtained only in the United States, the English debt balance to that country determined the extent of sterling depreciation; that is, the dollar-sterling rate was the only gold-sterling rate in the world. Moreover, the United States market was the great controller of the price of silver, so that the price of silver in sterling, the currency in which the Indian exchange rate was fixed, was dominated by the dollar price of silver and the extent of sterling depreciation as

measured in dollar. As the sterling price of silver affected the Indian rate by affecting the token character of the rupee, the United States cross rate was destined to dominate the Indian rate so long as sterling was not the equivalent of gold and so long as the price of silver was not steadied. Therefore, the Indian rate was moving up with every depreciation of sterling, since, to prevent a very great rise in our rate, it was being fixed at a point slightly higher than what was necessary to keep the rupee not as a token coin but as a coin worth its own metal.

The question was thus raised whether India should still stick to a sterling rate when it had so uncertain a value, or whether the rupee should be linked with gold. It should be remembered that formerly it had been linked with gold which was the same as sterling. Now that the two had diverged what should India have done? On this point both the majority and the minority reports of the Babington-Smith Committee concurred. The rupee, if it was linked with any thing, ought to be linked with gold which was stable in value throughout the world and not with sterling which had different values in terms of the different currencies of the world and varied constantly even at that.

There were two alternatives before the Committee, viz., (1) to keep the rupee intact

and therefore raise the rate, or (2) to keep the rate unaltered and therefore debase the rupee. Theoretically there was a third means also, viz., to control permanently the influx and efflux of gold and silver so that they would have in India an artificial value different from their world value, which would maintain the present rupee as a token coin, whereas the external exchange would be fixed at 1s. 4d. or indeed at any point by the complete Government control over all movements of specie. This obviously was impracticable and dangerous in principle.

It should be noted that neither of the above two alternatives should be taken as faultless, but we have to strike a balance between the advantages and disadvantages of each, and ascertain which of them would, on the whole, confer greater benefits on India, always of course keeping in mind the then existing economic conditions of the world. To take first the second alternative, viz., the exchange rate at 1s. 4d. with the debasement of the rupee coin. Its great advantage was that Indian exports would be highly stimulated especially in view of the enormous rise in prices in all the countries of Europe; at the old rate of exchange India was sure to have an unprecedented expansion of its export trade. This would naturally have tended to raise the exchange rate and thereby help

India to build up a huge reserve in sterling at London or lead to an influx of gold into India if it were available in the countries to which India would export. The negative argument in support of the old rate was that a rise in exchange will penalise India's exports, but this could be so only when the rise in exchange was greater than the rise in the price level in India's exporting markets. Another argument was that if, in this way, the gold were reduced in value, those who had hoarded gold would be penalised.

The most important factor involved in this method was that the rupee would have to be debased, that is, its silver contents would have to be reduced. Against this there were two objections, one economic and the other socio-economic or quasi-political. The first was that when the debased rupee would be introduced the present rupee would surely go out of circulation; this meant that the whole of the coined rupees must be replaced and that also within a very short period since the existing rupee at 1s. 4d. would be highly profitable when sold as bullion. In a country like India where coin has a charm all its own, it was bound to lead to a severe shock to the credit of the State, and the same difficulties as had been experienced during the first eight or nine months after the outbreak of the war might have been accentuated. This shock

might be fatal to the success of the new currency however sound it might otherwise be. Secondly, the rupee, as the majority report pertinently pointed out, has been well-known in India for generations. It is accepted even in the villages as the standard of weight and fineness and it is the basis of many daily transactions which have nothing to do with money as such. All this would have been disturbed and the masses might grow highly suspicious of Government methods in general. Theoretically the debasement does not in itself mean much, but if a token coin or paper money be a credit instrument, its prospect is bound to suffer materially if it does not take into calculation the prejudices of the masses who are to use it; and in India currency prejudices are by no means confined only to the illiterate. At a time when the public mind was in a highly disturbed condition for various reasons, it would have been inviting a breakdown of the currency system if the rupee were debased. This we would call the socio-economic or quasi-political danger from debasement.

Another argument in support of the 1s. 4d. rate and debased rupee was that one cannot change the legal rate without some discredit. This is true but one should accept the lesser of the two evils. A change in the rate is to be compared with a change in the silver contents

of the rupee. The latter would affect the vast majority of the people and would introduce a change never before experienced during the long career of the rupee for more than eighty years. On the other hand the exchange rate was unfixed till 1893 before which, for a time, it fluctuated like the movements of a shuttlecock and continued unsteady for several years after the rate had been fixed. During the war there was unsettlement of so many things, and the exchange rate was changed many times since January 1917 when it was raised to 1s. 4½d. As the exchange rate deals with India's foreign trade, if a change were inevitable as a result of external causes, the shock should be made to come on that rate instead of the internal currency which has nothing to do with exchange as such. Moreover, the community which is affected by the rate ought to be less guided by such sentimental reasons because it is expected to understand the reasons of exchange fluctuations. Further, it is accustomed to minor variations of the rate within the specie points, whereas the weight and fineness of the rupee are considered unalterable.

Apart from sentiment which is not negligible in currency affairs, there was that economic argument against raising the exchange rate, viz., its adverse effect upon the export trade. So, we shall examine this point

in some detail. It is certain that raising the rate would not have entailed a net loss to the exporter so long as this rise was less than the rise in the price of the market to which India exported. Hence a discussion of the topic that does not take into account the price-level of the foreign markets is one-sided and misleading. Therefore, we shall first of all give the figures of the wholesale prices in the important countries, taking an average of the prices of all the important articles. Taking 1913 as the standard or basic year the index numbers are as follow :

Countries	Index Numbers	Date, 1919
France	330'0	June
Italy	329'9	April
Japan	214'0	May
Sweden	339'0	April
United Kingdom	257'2	August
United States	206'0	May

The temporary effect on India's export trade can be measured by comparing the percentage increase in the new exchange rate (2s. gold) and the extent of sterling depreciation on the one hand and the percentage increase in the price level of the foreign countries. We should illustrate the point thus: Let the rupee be equal to 2s. 6d., assuming that 2s. gold was equivalent to 2s. 6d. in sterling. At this rate goods worth £100 in 1913 could in 1920 be exported from India

at Rs. 800, neglecting for the present the increase in the cost of transportation. In 1913 at 1s. 4d. it would have fetched Rs. 1,500; thus there would be a loss of Rs. 700 to the exporter. But the price of goods worth £100 in 1913 was now £257 4s., by which an additional amount of £157 4s., would come to the exporter; this in rupees is more than 1,257 according to the new exchange. From this deduct Rs. 700, the loss by high exchange; this leaves a net additional profit of Rs. 557. The item so far neglected is the cost of transportation the *increase* in which must be deducted from Rs. 557 to find out the net additional gain on the whole transaction. When sterling further moves towards gold the position of the exporter would become more favourable. In 1919 when the Committee reported sterling prices in the United Kingdom and prices in general in the European countries were mounting up.

The above calculation is on the supposition that there was no special demand for Indian goods in the European markets. But when we consider the fact that Europe's demand for most of India's exports was inelastic just before the war, the position of the exporter was naturally taken to be very strong. The facts which were incontrovertible in 1920 are as follow: In Europe then there was a great demand for foodstuffs which formed

about 25 per cent. of India's exports. Jute, raw and manufactured, was another commodity in a similar position and it also formed about 25 per cent. of India's exports. Cotton export was about 20 per cent., and so long as the American exchange remained in favour of that country, Indian cotton could not be expected to fall in demand. Tea formed about 8 per cent. of our exports and its position was considered by the trade itself to be absolutely secure. Hides and skins, raw and manufactured, and leather came up to about 8 per cent.; it was a mistake but from the fact that a special export duty—what we may call the experimental protective-cum-preferential tariff—had been imposed upon the raw variety, one was justified to presume that its foreign market was considered to be safe. These were all the important items in India's export trade, and they could legitimately be considered to be in no danger of falling off in demand. So that the European price, even if it had not otherwise been favourable to the Indian exporter as shown above, could not have been taken to bring any loss to him, since his capacity to push up prices was maintained in the prevailing circumstances of the European countries in 1919-1920.

It must however be remembered that all the above calculations rested on the assumption that an inelastic demand leading to a high price level would be maintained for some time

in Europe, so that enough time would be left for Indian prices to adjust themselves to the new forces. After this internal adjustment there could of course be no effect of the exchange rate on the trade and production of the country. Thus the crux of the whole thing lay in the then existing high prices in Europe: All experts said that they would remain so for a period much longer than what India would require for adjustment within itself. But we, who are now wiser after the event, know that prices began steadily to fall from 1921. The main reason is of course the vicious circle created by the treaty of Versailles, by which huge reparations are to be paid by the enemy countries at the same time that their exports are to be prohibited from entering the Allied countries. The breakdown of credit and the blind opposition to its rebuilding considerably reduced the purchasing power of all the European countries. Thus we have now for six years the spectacle of immense sufferings of millions of human beings for want of the necessities of life, while the same necessities are glutting the markets of India, Japan, and the United States. The economic solidarity of the world is more inexorable than the dictates of the Big Three at the peace conference. The result is that the problem has become acute for the exporting countries outside Europe as it is for the non-consuming countries of Central

and Eastern Europe. The note of warning was early raised by the English economic expert at the Paris conference, but it was in vain. With circumstances as such it could hardly be expected that the Babington-Smith Committee would anticipate the obvious follies into which the victorious countries of Europe drifted. In India the boom of companies in 1919 shows that a fall in prices was not only not expected but a contrary process was confidently anticipated. Thus for the miscalculation no body in 1919-1920 can be held responsible.

Economists do not but some others aver that the exchange rate has permanent effects upon trade and production. We need not stop here to consider the point as it must be known to all economists. The point has been effectively disposed of by the Indian Currency Committees of 1893 and 1899. The argument has been summarised in a previous chapter.† It is during the period when the internal prices are not adjusted to the new rate that there may be gain or loss to particular producers or traders.

Another disadvantage of the 1s. 4d. rate was that the price of imported articles would have risen immediately to the full extent of the rise in the foreign countries. The Indian public were already bitterly resenting

† Vide Chapter IV, *supra*.

high prices, and the Government as well as many public men were of opinion that a further rise might lead to disastrous consequences. This in itself was an advantage of the high rate fixed in 1919-1920. Moreover, this helped the payment of the home charges as also that for the purchase of machinery, plants, etc., for India's nascent industries, which had received a strong stimulus during the last years of the war and the period just following the armistice. On the other hand it must be acknowledged that the attempt permanently to fix the new exchange rate by legislation at a time when there was the utmost disorder in the business organisations of the world was not only premature but proves the want of that grasp of exchange principles for which the India Office was famous during the life-time of Sir Lionel Abrahams.

Some have argued that Indian manufactures would have been especially encouraged by a low rate in that they would have been exported in large quantities. The manufactures of India which were likely to be developed in the near future would have found a much better market in India than in foreign countries, where they would have to pay the additional cost of transport; in India they could compete with foreign manufactures with the cost of carriage superadded to the latter. Moreover, the Indian market was expected to

remain, for a long time to come, too vast to be fully supplied by Indian manufactures only. At any rate it was only reasonable to presume that during the period of adjustment, that is, during the period when the exchange rate would affect production and trade, Indian manufactures would be profitably engaged in capturing the home market and reap all the advantages of protection conferred by high prices abroad and high freight charges. What manufactures India exported at that time, viz., Rs. 87 crores consisting of jute Rs. 52½ crores, cotton Rs. 14 crores, and tanned and dressed hides and skins Rs. 10 crores, were not considered, on the available data, to have been running any risk at all.

Thus, on a consideration of the advantages and disadvantages of the two alternative methods before the Babington-Smith Committee, it appears that the majority report which was followed by Government recommended the most sound policy under the circumstances for the currency and exchange system of India, when it advocated the cause of (1) a gold exchange, (2) a high rate, and (3) a rupee with unaltered metallic contents.

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